Service
Service
Service

20PFL4122/93
20PFL4122/79
20PFL4122/98

# Service Manual


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Subject to modification Apr. 06 , 2007 EN: 3122 785 17041

PHILIPS

# 1.Technical Specifications,Connections,and Chassis Overview

Index of this chapter:
1.1 Technical Specifications
1.2 Connections
1.3 Chassis Overview

Notes:
Figures below can deviate slightly from the actual situation, due to the different set executions.
Specifications are indicative (subject to change)

## 1.1 Technical Specifications

### 1.1.1 Technical Specifications

| | |
|---|---|
| Panel | :CPT |
| Display area(mm) | : 408.0mm (H) x 306.0mm (V) |
| Number of Pixels | : 640x3 (H) x 480 (V) |
| Pitch ( mm ) | : 0.6375mm (H) x 0.6375mm (V) |
| Color pixel arrangement | : RGB vertical stripe |
| Display operating mode | : Normally White, TN |
| Color depth | : 16.2M colors ( 6Bit+FRC) |
| Brightness (cd/m^2) | : 450 nits (Typ.) |
| Viewing angle(CR>10) | : Viewing angle free(R/L 160 (Typ.),U/D 135(Typ.)) |
| Surface treatment | : Hard coating 3H; Anti-glare |
| Electrical interface | : TTL |
| Response Time | : 8ms (Typ) |
| Contrast ratio | : 500 (Typ) |
| Outline Dimension | : 448.0 mm(W) x 347.0 mm(H) x 23.0(D) mm (Max) |
| Module weight (g) | : 3800(Typ.) |
| Backlight | : 6 CCFLs, side-lighting |
| Support video format | : 1440x480i/59Hz<br>1440x480i/60Hz<br>1440x576i/50Hz<br>720x480p/59Hz<br>720x480p/60Hz<br>720x576p/50Hz<br>1440x480p/59Hz<br>1440x480p/60Hz<br>1440x576p/50Hz<br>1280x720p/50Hz<br>1280z720p/59Hz<br>1280x720p/60Hz<br>1920x1080i/50Hz<br>1920x1080i/59Hz<br>1920x1080i/60Hz<br>1920x1080p/50Hz<br>1920x1080p/59Hz<br>1920x1080p/60Hz |

### 1.1.2 Sound

| | |
|---|---|
| Sound systems | : Mono / Stereo / Virtual Surround |
| Maximum power | : 2 x 3W |

### 1.1.3 Miscellaneous

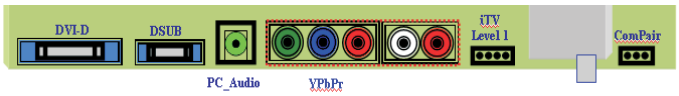
Power Supply
AC-input : 90V ~ 264VAC, 50/60±3Hz
Power consumption:
Normal:
1. PC Mode: TYP 60 W (with audio)
2. TV Mode: TYP 60 W (with audio)
Maximum: 65W (with audio)
Power cord length : 1.8M
Power cord type : 3 lead with earth plug, pluggable
Power indicator : LED (On: Blue, Standby mode: Amber)
Auto power saving : VESA DPMS

Ambient conditions
Temperature : 0 to40°C
Humidity : 20 to 70% (non --condensing )

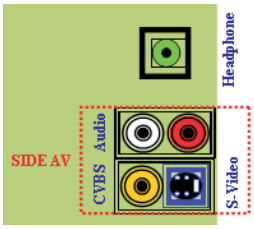
Power consumption
Normal: 60W/Typ. at PC mode, 60W /Typ. at TV mode (LED: Blue)
Max: 65W(with Audio)
Standby < 2W (Amber)
DC power switch off < 2W

## 1.2 Connectors

1.2.1 I/O interface
Connectors: From Right to Left
1. Compair：Rx/Tx communication
2. Tuner: PAL D/K for /93 (China model)
PAL B/G、I and SECAM B/G、D/K for /98 (AP model)
PAL D/K、I and NTSC-M for /79 (AP model)
3. ITV-Level 1: ITV Level 1 connector (4-pin connector)
4. Comp IN : Component input with YPbPr format with audio R/L.
5. PC audio IN: audio R/L(mini-jack).
6. PC IN: VGA input (D-SUB connector)
7. DVI-D : digital PC and video input




Vertical Connectors at the right side
1. Earphone : earphone jack
2. SIDE AV audio IN : AV and S-Video shared audio R/L (RCA jack)
3. SIDE AV IN : Composite video input (SIDE AV)



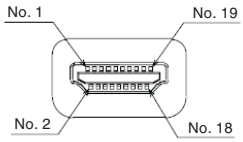

1.2.2 Electrical characteristics of I/O
PC Signal type
a. Analog Video : 15pin D-Sub,0.7 Vp-p linear, positive polarity and Separate Sync( TTL level,positive or negative polarity)
b. Digital Video : 24-pin DVI-D connect connector, Single TMDS link according to DVI 1.0 specification w/ High-Definition Content Protection (HDCP) Specification 1.10
c. Audio signal : Mini-jack audio input,
Level: Nominal : 0.5 V rms.
- Maximum : 1.5 V rms.
-Impedance > 10 k

TV mode signal type
RF Signal : Aerial input / 10mV(30-100dBuV)
Video signal : CVBS input(RCA jack) / 1Vpp (300mV-sync, 700mV-video.)
S-Video input / 1VppY-signal, +/-300mV C-signal
COMP Video(YPbPr input)/ 1Vpp Y signal, +/-350mV Pb,Pr signal
DVI/Digital interface with 4 channels TMDS signal and compatible with HDMI1.1 requirements except audio portion.
CVBS output (RCA jack) / 1Vpp (300mV-sync, 700mV-video.)
Audio signal : Audio (1) R/L for SIDE AV IN (AV and S-Video).
Level: - Nominal : 0.5 V rms.
- Maximum : 1.5 V rms.
- Impedance > 10 k.
Audio (2) R/L for Comp Video IN.
Level: - Nominal : 0.5 V rms.
- Maximum : 1.5 V rms.
- Impedance > 10 k
Audio (3) Mini-jack audio for DVI

Main Speaker
Speaker output : 2 x 3 Wrms, with T.H.D. < 10%.
Headphone
Audio: R/L output -10mW at 32.
3.5mm stereo jack
Impedance is between 8 and 600

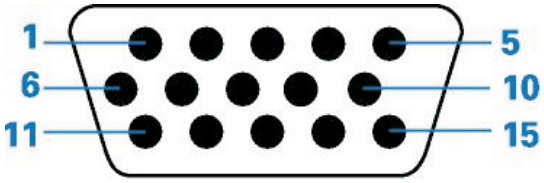
1.2.3 HDMI Pin assignment (Nafta only)

Type A Connector



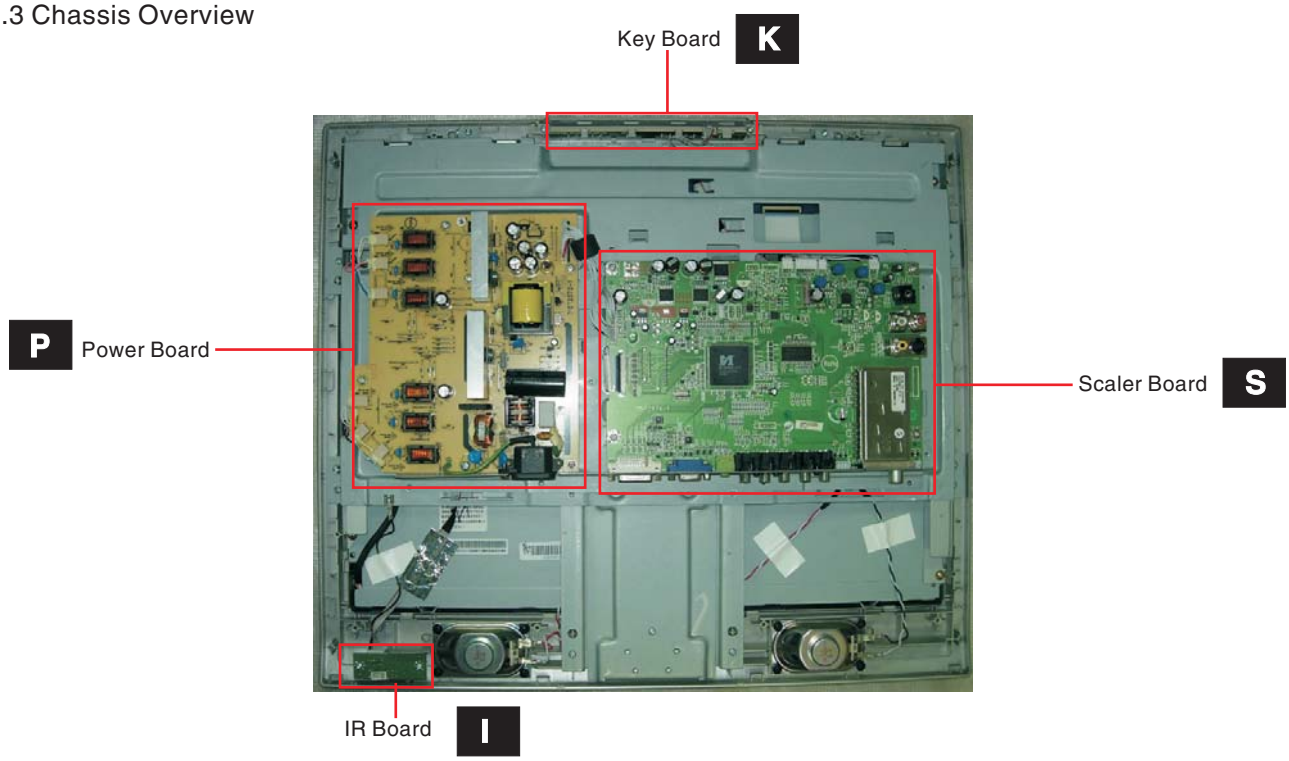

| PIN No. | SIGNAL |
|---|---|
| 1 | TMDS Data2+ |
| 2 | TMDS Data2 shield |
| 3 | TDMS Data2- |
| 4 | TMDS Data1+ |
| 5 | TMDS Data1 shield |
| 6 | TMDS Data1- |
| 7 | TMDS Data0+ |
| 8 | TMDS Data0 shield |
| 9 | TMDS Data0- |
| 10 | TMDS Clock+ |
| 11 | TMDS Clock Shield |
| 12 | TMDS Clock- |
| 13 | CEC |
| 14 | Reserved (N.C. on device) |
| 15 | SCL |
| 16 | SDA |
| 17 | DDC/CEC Ground |
| 18 | +5V Power |
| 19 | Hot Plug Detect |

1.2.4 VGA Pin assignment




| PIN No. | SIGNAL |
|---|---|
| 1 | Red |
| 2 | Green |
| 3 | Blue |
| 4 | GND |
| 5 | Self test |
| 6 | Red GND |
| 7 | Green GND |
| 8 | Blue GND |
| 9 | +5V (Supply from PC) |
| 10 | Sync GND |
| 11 | GND |
| 12 | Bi-directional data(SDA) |
| 13 | H-sync |
| 14 | V-sync |
| 15 | Data clock(SCL) |

## 1.3 Chassis Overview



# 2.Safety Instructions,Warnings,and Notes

Index of this chapter:
2.1 Safety instructions
2.2 Warnings
2.3 Notes

## 2.1 Safety Instructions

Safety regulations require the following during a repair:
- Connect set to the Mains/AC Power via an isolation transformer(>800VA)
- Replace safety components,indicated by the symbol⚠, only by components identical to the original ones.Any other component substitution(other than original type)may increase risk of fire or electrical shock hazard

Safety regulations require that after a repair,the set must be returned in its original condition.pay in particular attention to the following points:
- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the Mains/AC power lead for external damage.
- Check the strain relief of the Main/AC power cord for proper function.
- Check the electrical DC resistance between the pins of the Mains/AC Power plug and secondary side(only for sets that have a Mains/AC power isolated poer supply):
  1. Unplug the Mains/AC Power cord and connect a wire between the two pins of the Mains/AC power plug.\
  2.Set the Mains/AC Power switch to the "ON" position (keep the Mains/AC Power cord unplugged!)
  3.Measure the resistance value between the pins of the Mains/AC Power plug and the metal shielding of the tuner or the aerial connection on the set.The reading should be between 4.5 Mohm and 12 Mohm.
  4.Switch "OFF" the set,and remove the wire between the two pins of the Mains/AC plug.
- Check the cabinet for defects,to prevent touching of any inner parts by the customer.

## 2.2 Warnings

- All ICs and many other semiconductors are susceptible to electrostatic discharges(ESD). Careless handling during repair can redure life drastically.Make sure that,during repair, you are connected with same potential as the mass of the set by wristband ith resistance .Keep components and tools also at this same potential.Available EDS protection equipment:
  -Complete kitEDS3(small tablemat,wrisband,connection box ,extension cable and earth cable)4822 310 10671.
  -Wristband tester 4822 344 13999.
- Be careful suring measurements in the high voltage section.
- Never replace modues or other components while the unit is switched"ON".
- When you align the set,use plastic rather than metal tools.This will prevent any shurt circuits and danger of a circuit becoming unstable.

## 2.3 Notes

### 2.3.1 General

- Measure the voltages and waveforms with regard to the chassis (=tuner)ground(⏚),or hot ground(⏚), depending on the tested area of curcuitry.The voltages and waveforms shown in the diagrams are indicative.Measure them in the Service Default Mode(see chapter 5)with a colour bar signal and stereo sound(L:3 khz, R:1 kHz unless statedotehrwise)and picture carrier at 475.25 Mhz for PAL,or 61.25 MHZ for NTSC(channel 3).
- Where necessary,measure the waveforms and voltages with(┐┌) and without(┐┌)aerial signal.Measure the voltages in the power supply section both in normal operation(⏻) and in stand-by(⏻). These values are indicated by means of the approprate symbols.
- The semiconductors indicated in the circuit diagram and in the parts lists,are interchangeable per position with the semiconductors in the unit,irrespective of the type indication on these semiconductors.
- Manufactured under license from Dolby Laboratories."Dolby", "Pro Logic" and the "double-D symbol",are trademarks of Dolby laboratories.

### 2.3.2 Schematic Notes

- All resistor values are ohms,and the value multiplier is often used to indicate the decimal point location(e.g. 2K2 indicates 2.2 kohm).
- Resistor values with no munltiplier may be indicated with either an "E" or an "R"(e.g.220E or 220R indicates 220 ohm).
- All capacitor values are given in micro-farads($u=x10^{-6}$),nano-farads9n=$x10^{-9}$),or pico-farads($p=x10^{-12}$).
- Capacitor values may also use the value multiplier as the decimal point indication(e.g. 2p2 indicates 2.2 pF).
- An "asterisk"(*) indicates component usage varies.Refer to the diversity tables for the correct values.
- The correct component values are listed in the Spare Parts List. Therefore,always check this list when there is amy doubt.

### 2.3.3 Lead-free Solder

Philips CE is producing Lead-free sets (PBF) from 1.1.2005 onwards.

**Idntification:**The bottom line of a type gives a 14-digit serial number.Digial 5 and 6 refer to the production year,digits 7 and 8 refer to production week( inexample below it is 2007 week14)

**Figure 2-1 Serial number example**

Regardless of the special lead-free logo(which is not always indicated),one must treat all sets from this date onwards according to the rules as described below.

**Figure 2-2 Lead-free logo**

Due to lead-free technology some rules have to be respected by the workshop during a repair:

Use only lead-free soldering tin Philips SAC305 with order code 06622 149 00106.If lead-free solder paste is required please contact the manufacturer of your soldering equipment.In general,use of solder paste within workshops should be avioded because paste is not easy to store and to handle.
Use only adequate solder tools applicable for lead-free soldering tin.The solder tool must be able:
-To reach a solder-tip temperature of at least 400℃.
-To stabilise the adjusted temerature at the solder-tip
-To exchange solder-tips for different applications.
Adjust your solder tool so that a temperature of around 360℃ -380℃ is reached and stablilised at the solder joint. Heating time of the solder-joint should not exceed~4sec. Aviod temperatures above 400℃,otherwise wear-out of tips will increase drastically and flux-fluid will be destroyed.
To aviod wear-out of tips,switch□off□ unused equipment or reduce heat.
Mix of lead-free soldering tim/parts with leaded soldering tin/parts is possible but PHILIPS recommends strongly to avoid mixed regimes.If this cannot be avoided,carefully clear the solder-joint from old tin and re-solder with new tin.
Use only original spare -parts listed in the Service-Manuals. Not listed standed material(commodities)has to be purchased at external companies.
For sets produced before 1.1.2005,containing leaded soldering tin and components,all needed spare parts will be available till the end of the service period.For the repair of such sets nothing changes

In case of doubt whether the board is lead-free or not(or with mixed technologies),you can use the following method:
Always use the highest temperature to solder,when using SAC305(see also instructions below).
De-solder thoroughly(clean solder joints to avoid mix of two alloys).

2.3.4 Alternative BOM identification

In September 2005,Philips CE introduced a change in the way the serial number(or production number,see Figure 2-1)is composed.From this data on,the third digit in the serial number (example:AG2B0335000005) indicates the number of the Alternativ BOM(bill of Materials used for producing the sepcific model of TV set).It is possible that the same TV model on the market is produced with e.g. Two different types of displays, coming from two different O.E.M.s.
By looking at the third digit of the serial number,the serivce technician can see if there is more than one type of B.O.M. Used in theproduction of the TV set he is working with.He can used in the Commercial type Version Number of the TV set (e.g.20PFL4122/93),after which a screen will appear that gives information about the number of alternative B.O.M.s used.
If the third digit of serial nuber contains the number 1(example: AG1B0335000001),then there is only one B.O.M. Version of the TV set on the market.If tje third digit is a 2(example: AG2B033500001),then there are two different B.O.M.s. Information about this is important for ordering the correct spare parts!
For the third digit,the number 1....9 and the characters A.....Z can be used,so in total:9 plus 26=35 different B.O.M.s can be indicated by the third digit of the serial number.

2.3.5 Board Level repair(BLR) or Component Level Repair(CLR)

If a board is defective,consult your repair procedure to decide if the board has to be exchanged or if it should be repaired on component level.
If your repair procedure says the board should be exchanged completely,do not solder on the degective board.Otherwise,it cannot be returned to the O.E.M. Supplier for back charging!

2.3.6 Practical Service precautions

It makes sense to avoid exposure to electrical shock.
While some sources are expected to have a possible dangerous impact,others of quite high potential are of limited current and are sometimes held in less regard.
Always respect voltages.While some may not be dangerous in themselves,they can cause unexpected reactions that are best avoided.Before reaching into a powered TV set,it is best to test the high voltage insulation.It is easy to do,and is a good service precaution.

## 3. Directions for Use

You can download this information from the following websites:
*http://www.philips.com/support*
*http://www.p4c.philips.com*

| PC Mode | | | |
|---|---|---|---|
| 1st Layer | 2nd Layer | 3rd Layer | 4th Layer |
| Picture | Color temp | Normal | |
| | | Warm | |
| | | Cool | |
| | Brightness | | |
| | Contrast | | |
| | Auto adjust | Yes | |
| | Manual adjust | Phase | |
| | | Clock | |
| | | Horizontal | |
| | | Vertical | |
| Sound | Smart sound | Personal | |
| | | Speech | |
| | | Music | |
| | | Movie | |
| | | Multimedia | |
| | Settings | Treble | |
| | | Bass | |
| | | Balance | |
| | Incredible surround | On | |
| | | Off | |
| | AVL | On | |
| | | Off | |
| Features | | | |
| | | | |
| Install | Language | English | |
| | | 中文 | |
| | | Thai (Only /79/98) | |
| | | Arabic (Only /79/98) | |
| | Factory reset | No | |
| | | Yes | |

| 1st Layer | 2nd Layer | 3rd Layer | 4th Layer | 5th Layer |
|---|---|---|---|---|
| Picture | Smart picture | Personal | | |
| | | Rich | | |
| | | Nature | | |
| | | Soft | | |
| | | Multimedia | | |

| | | | |
|---|---|---|---|
| Contrast | | | |
| Brightness | | | |
| Color | | | |
| Sharpness | | | |
| Color temp | Normal | | |
| | Warm | | |
| | Cool | | |
| Picture format | 4:3 | | |
| | Expand 4:3 | | |
| | Compress 16:9 | | |
| | HD 4:3 | | |
| | | | |
| | | | |
| Smart sound | Personal | | |
| | Speech | | |
| | Music | | |
| | Movie | | |
| | Multimedia | | |
| Settings | Treble | | |
| | Bass | | |
| | Balance | | |
| Incredible surround | On | | |
| | Off | | |
| AVL | On | | |
| | Off | | |
| Timer | Clock | | |
| | Start time | | |
| | Stop time | | |
| | Sleep timer | | |
| NR | On | | |
| | Off | | |
| Auto lock | Lock program | | |
| | Change code | Enter New Code | Confirm Code |

| | | | | |
|---|---|---|---|---|
| | | Clear all | Start ? | |
| | Source list | TV | | |
| | | CVI | | |
| | | SIDE AV | | |
| | | PC | | |
| | | DVI | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Install | Language | English | | |
| | | 中文 | | |
| | | Thai (Only /79/98) | | |
| | | Arabic (Only /79/98) | | |
| | Auto store | Start ? | Auto store | |
| | | | Please wait | |
| | | | Prog. found | |
| | | | Frequency | |
| | Manual store | Manual store | MHz | |
| | | | Start ? | |
| | | Prog. no | | |
| | | Finetune | | |
| | | Store | Store ? | |
| | | | Stored | |
| | Channel setting | Channel edit | Channel | |
| | | | Skipped | Active |
| | | | | Skipped |
| | | Channel swap | From | |
| | | | To | |
| | | | Exchange | Exchange ? |
| | | | | Exchanged |
| | | Name edit | Channel | |
| | | | Name | |
| | | Channel sort | Sort ? | Sorting □ □ |
| | | | | Sort complete |
| | Factory reset | No | | |
| | | Yes | | |

# 4. Mechanical Instructions

Index of this chapter:
4.1 Assy/Panel Removal
4.2 Set Re-assembly

## 4.1 Assy/Panel Removal

Note:Please put your mechine on a soft material to avoid to scrape panel when you disassemble it.

Front view

Fig.1

Back view

Fig.2

Step 1. Remove the Base.

Remove the 4 screws as Fig.3.

Fig.3

Step 2. Remove the Back cover and SHIELD-MAIN as Fig.4~5.

a. Remove the 4 screws, then remove the back cover as Fig.4.
b. Remove the 5 screws , then remove SHIELD-MAIN as Fig.5.

Fig.4

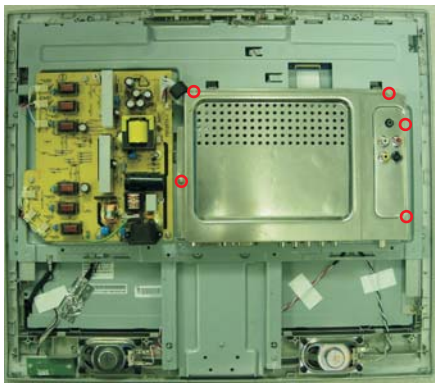


Fig.5

Step 3. Remove the Scaler, Power, IR and Key as Fig.6.

a. Remove the 11 screws and disconnect the 6 cables to remove the scaler board .
b. Remove the 7 screws and disconnect the 3 cables to remove the Power board.
c. Remove the 2 screws and disconnect the 1 cable to remove the IR board.
d. Remove the 2 screws and disconnect the 1 cable to remove the Key board.

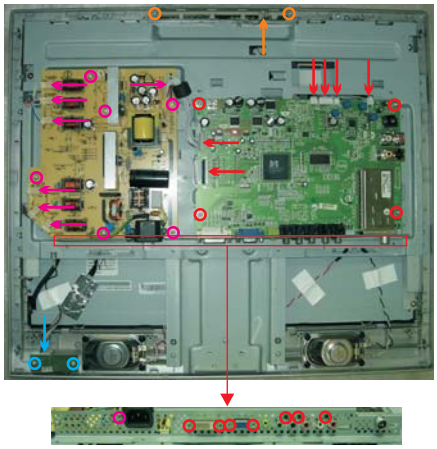


Fig.6

Step 4. Remove the speakers and the Frame assy as Fig.7.

a. Remove the 13 screws to remove the Frame assy as Fig.7.
b. Remove the 8 screws to remove the Speaker as Fig.7.

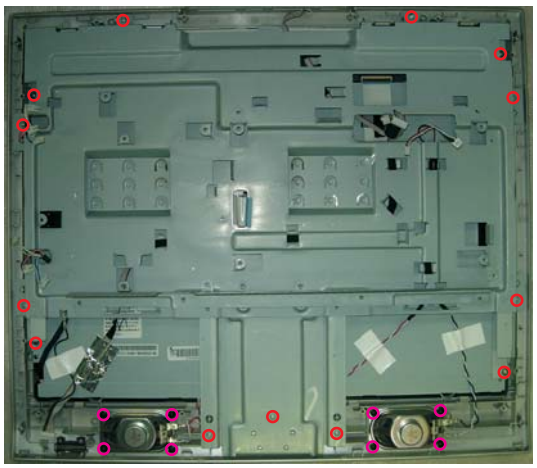


Fig.7

Step 5. Remove Front bezel assy and LVDS cable as Fig.8~9.

a. Remove the LVDS cable as Fig.8.
b. Remove the Front bezel assy as Fig.9.

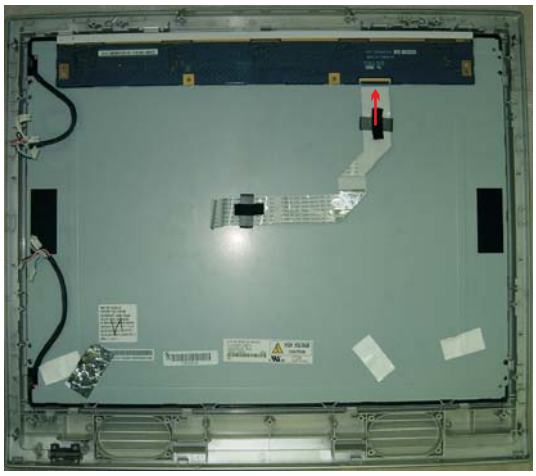


Fig.8

Fig.9

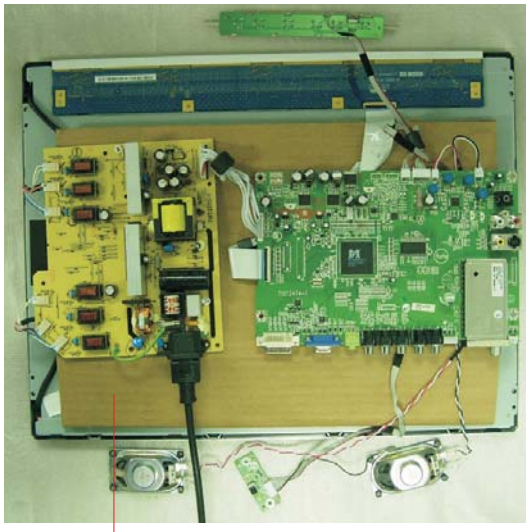


Fig.10

Insulation material

## 4.2 Set Re-assembly

To re-assemble the whole set, execute all processes in reverse order.

Notes:
a. While re-assembling, make sure that all cables are placed and connected in their original position.
b. Pay special attention not to damage the EMC foams at the SSB shielding. Check that EMC foams are put correctly on their places.

**********
In warranty, it is not allowed to disassembly the LCD panel, even the backlight unit defect.

Out of warranty, the replacment of backlight unit is a correct way when the defect is cused by backlight (CCFL,Lamp).
**********

# 5. Service Modes, Error Codes and Fault Finding

index of this chapter:
5.1 CSM
5.2 Factory Mode
5.3 Repair Flow Chart

## 5.1 CSM

It can display CSM windows message when press 1-2 3-6 5-4 on the button (RC) remote control in normal operation mode.
The following information is displayed on screen:

| CSM Item | Contents | Remark |
|---|---|---|
| 1:Set type | 20PFL4122/93 | Model name |
| 2: Production code | BZ2A0712390037 | 14 digit production-code to be retrieved per set to be written in NVM./EEPROM |
| 3: SW-naming main-processor | F3 20PFL4122A_V2.00 | F3=family,20PFL4122=model,A=Asia,V=version, 2=SW main version,00=SW sub version |
| 4: SW-naming extra processor | N/A | |
| 5: Code 1 | 00 00 00 00 00 | Logging I2C error codes in NVM/EEPROM (5 last logged errors) |
| 6: Code 2 | 00 00 00 00 00 | Logging I2C error codes in NVM/EEPROM (5 first logged errors) |
| 7: Key (HDCP) | Invalid | Information whether HDCP-key is valid |
| 8: NVM-naming | 24C32 With BDS | If there are different NVM-contents per display-type |

About error code,Please refer to the table below.

| Error code | Event |
|---|---|
| 0x01 | Audio decoder Error |
| 0x02 | IIC bus error |
| 0x03 | Tuner error |
| 0x04 | NVRAM Error |
| 0x05 | Scaler Chip error |

## 5.2 Factory Mode

It can enter Factory Mode

1. Press "062596+Menu" on the button (RC) remote control as Fig1

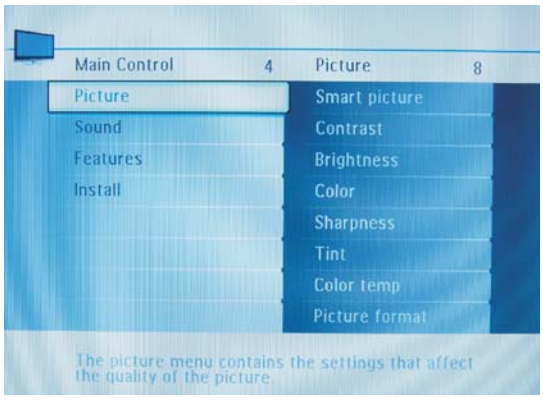



Fig 1

2.Choose F3 93 V1.77 71.1 and press"OK"button to enter factory mode as Fig 2

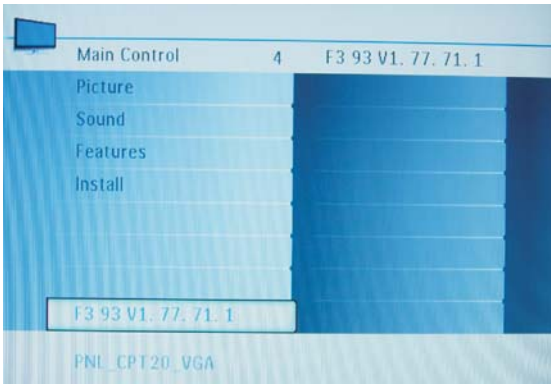
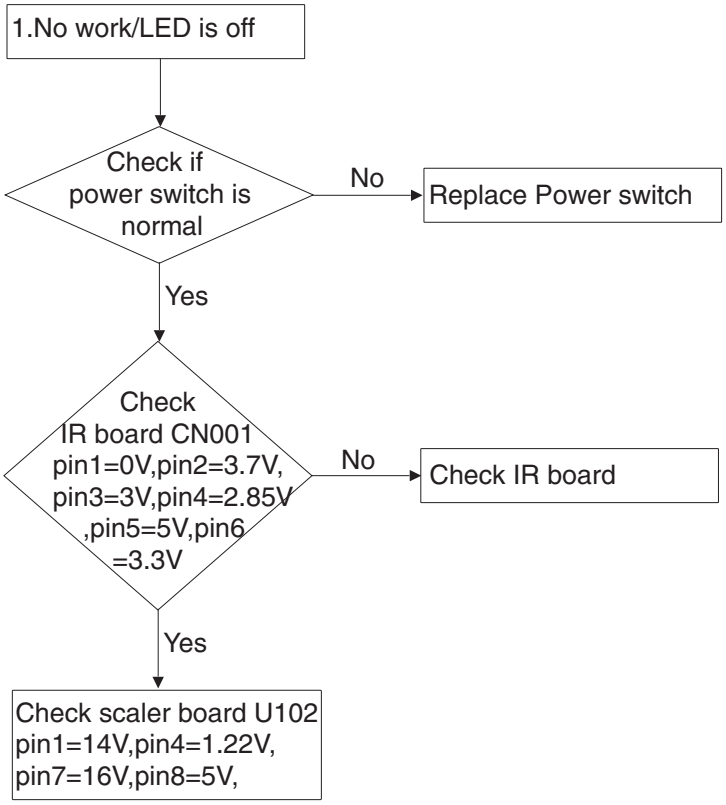


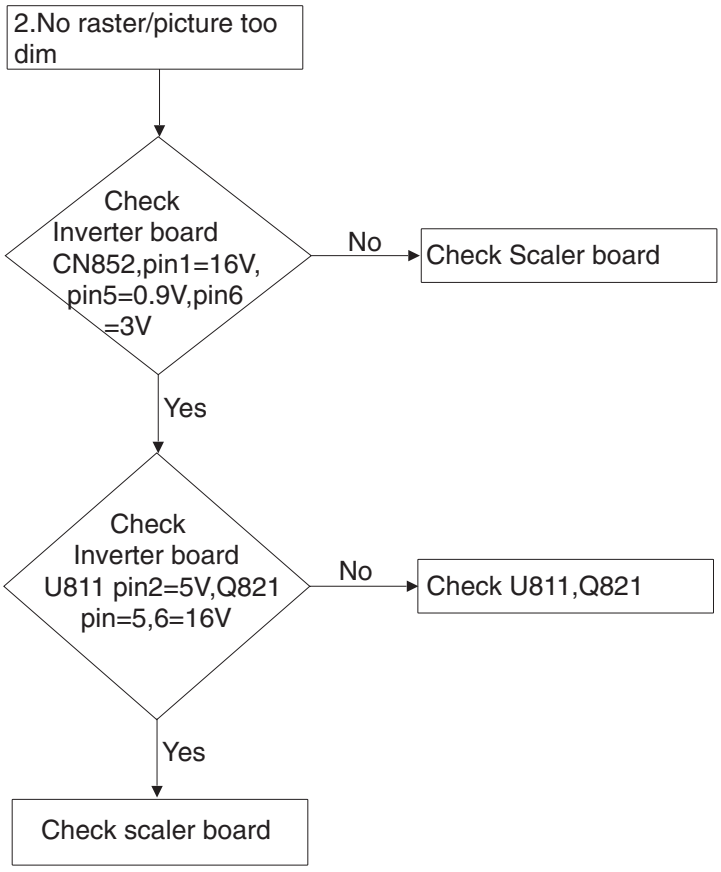

Fig 2

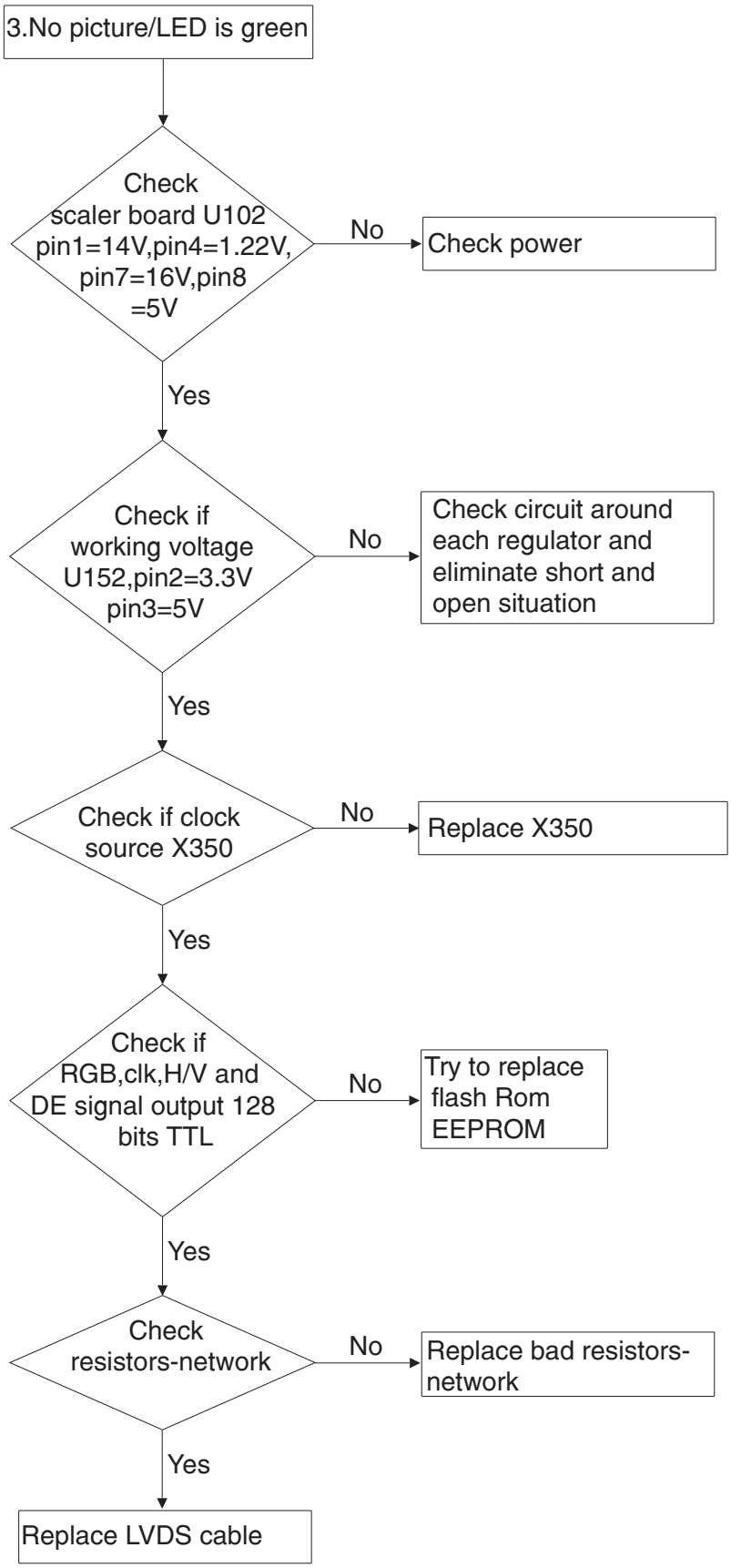
3. You can find the factory model menu as Fig 3

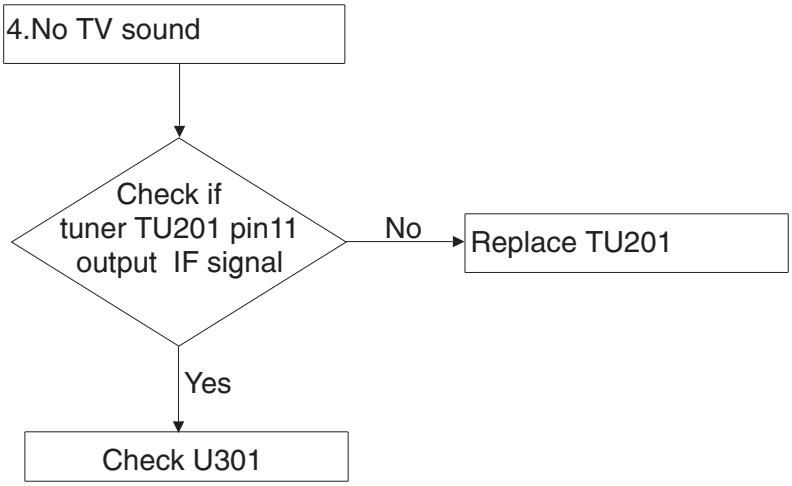
Fig 3

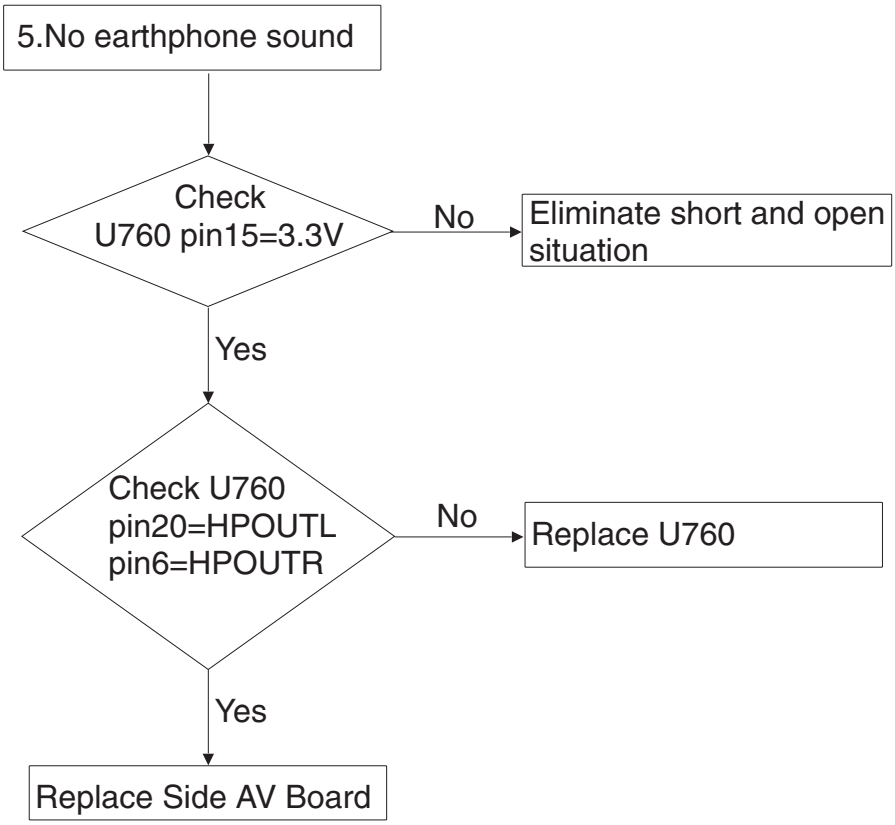
5.3 Repair flow chart

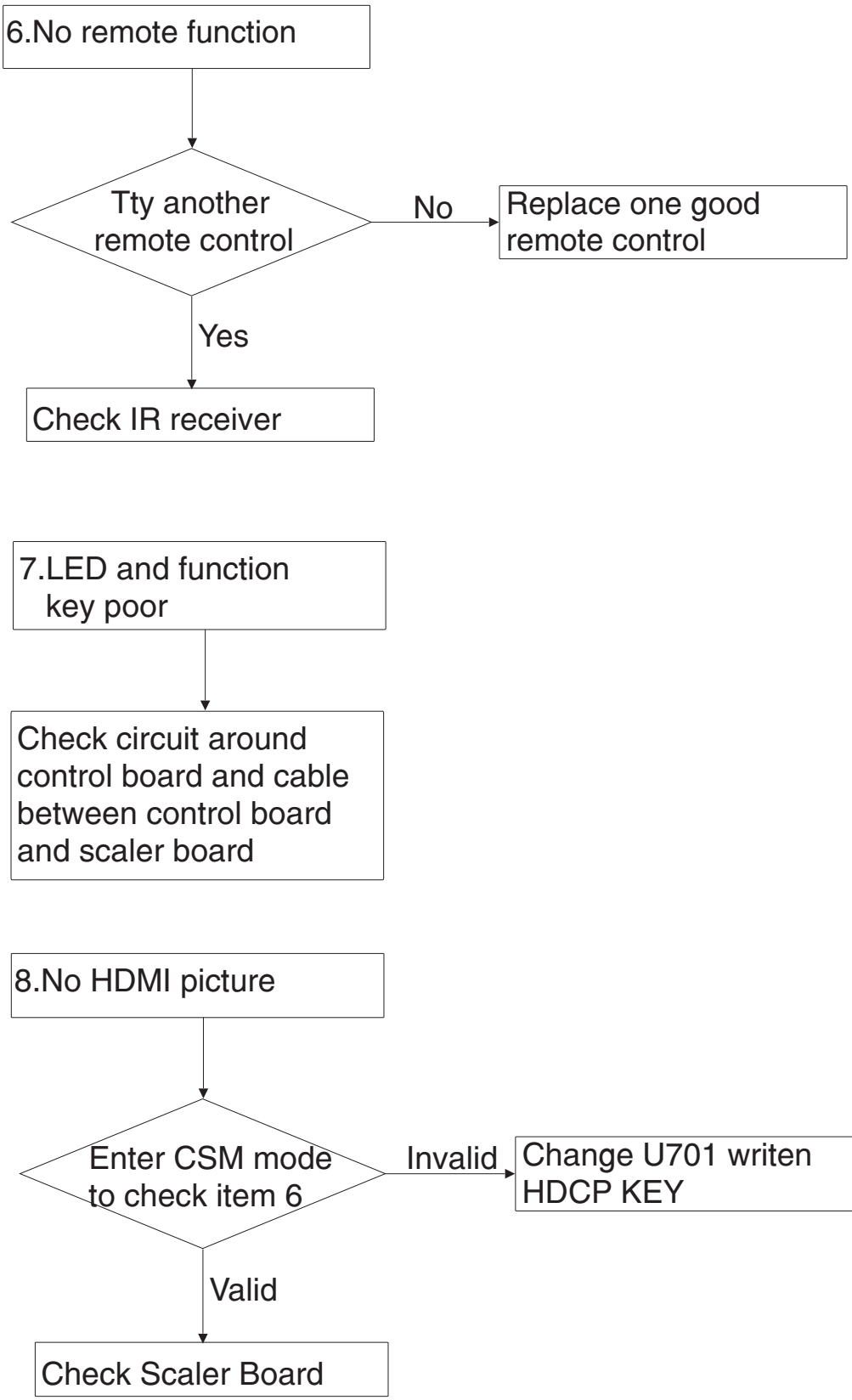



3.No picture/LED is green
Check scaler board U102 pin1=14V,pin4=1.22V, pin7=16V,pin8 =5V
No
Check power
Yes
Check if working voltage U152,pin2=3.3V pin3=5V
No
Check circuit around each regulator and eliminate short and open situation
Yes
Check if clock source X350
No
Replace X350
Yes
Check if RGB,clk,H/V and DE signal output 128 bits TTL
No
Try to replace flash Rom EEPROM
Yes
Check resistors-network
No
Replace bad resistors-network
Yes
Replace LVDS cable


4.No TV sound
Check if tuner TU201 pin11 output IF signal
No
Replace TU201
Yes
Check U301

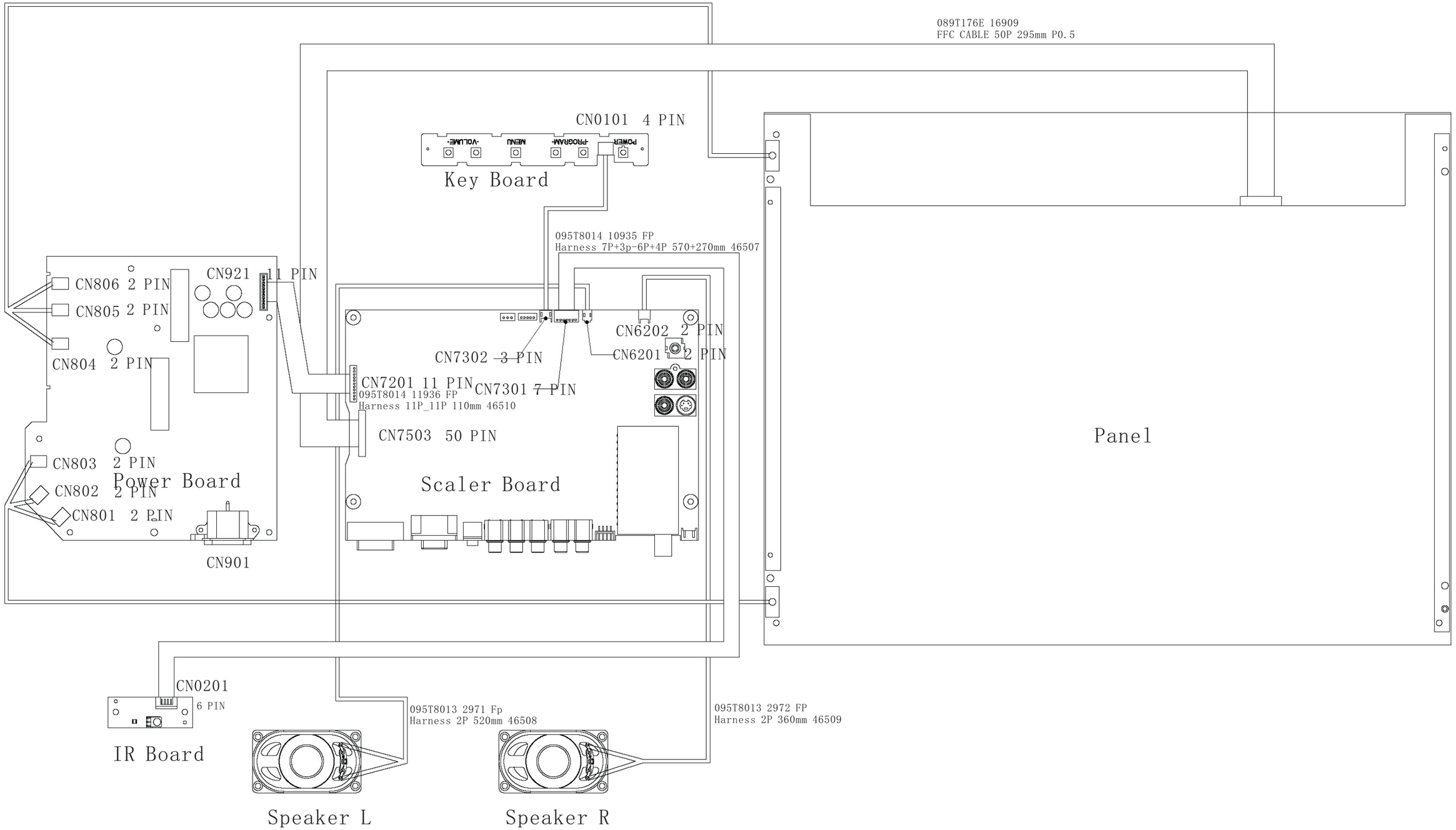

5.No earthphone sound
Check U760 pin15=3.3V
No
Eliminate short and open situation
Yes
Check U760 pin20=HPOUTL pin6=HPOUTR
No
Replace U760
Yes
Replace Side AV Board


6.No remote function
Tty another remote control
No
Replace one good remote control
Yes
Check IR receiver
7.LED and function key poor
Check circuit around control board and cable between control board and scaler board
8.No HDMI picture
Enter CSM mode to check item 6
Invalid
Change U701 writen HDCP KEY
Valid
Check Scaler Board

# 6. Block Diagram

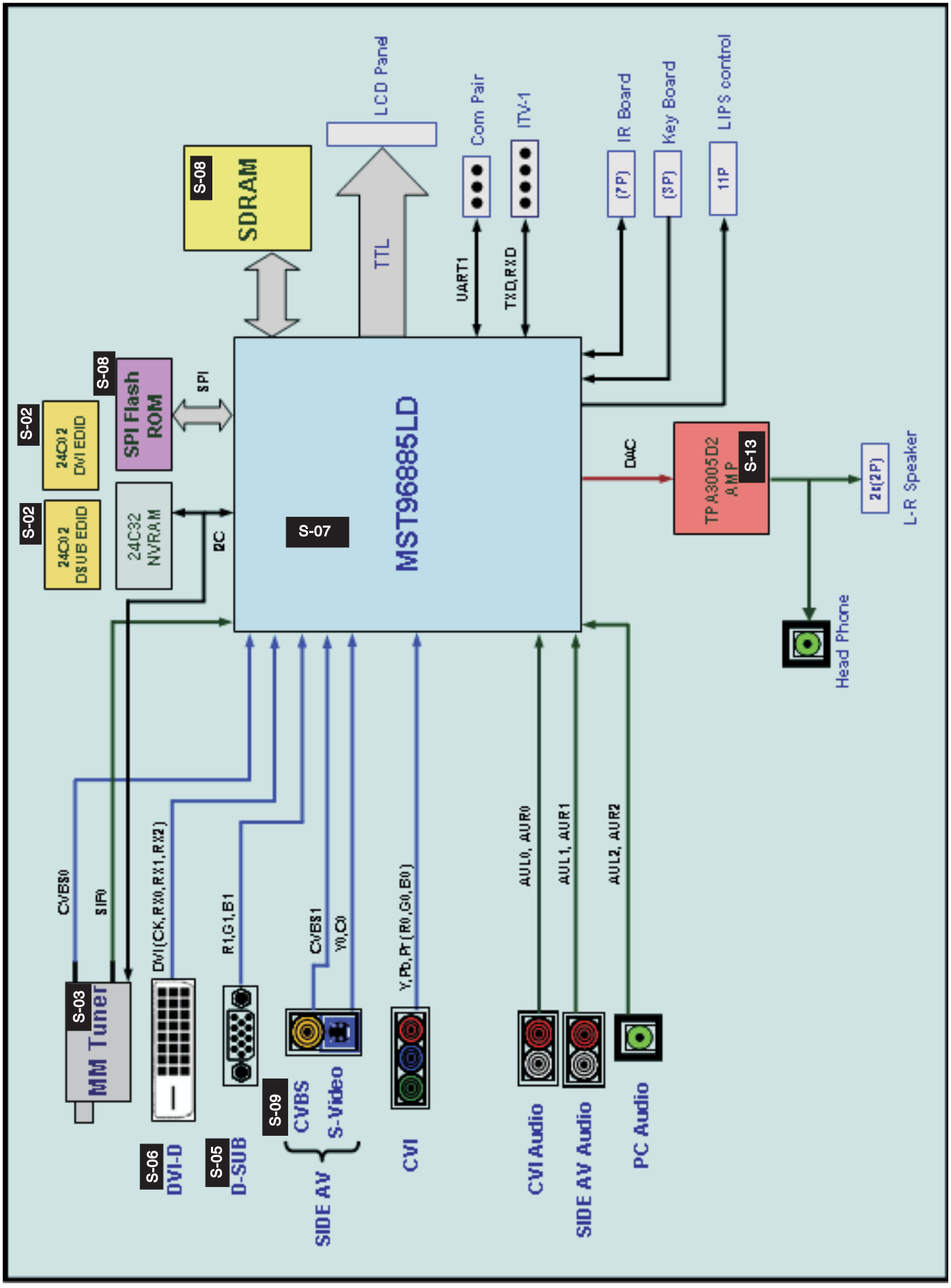
Index of this chapter:
6.1 Wiring Diagram
6.2 Block Diagram

## Wiring Diagram

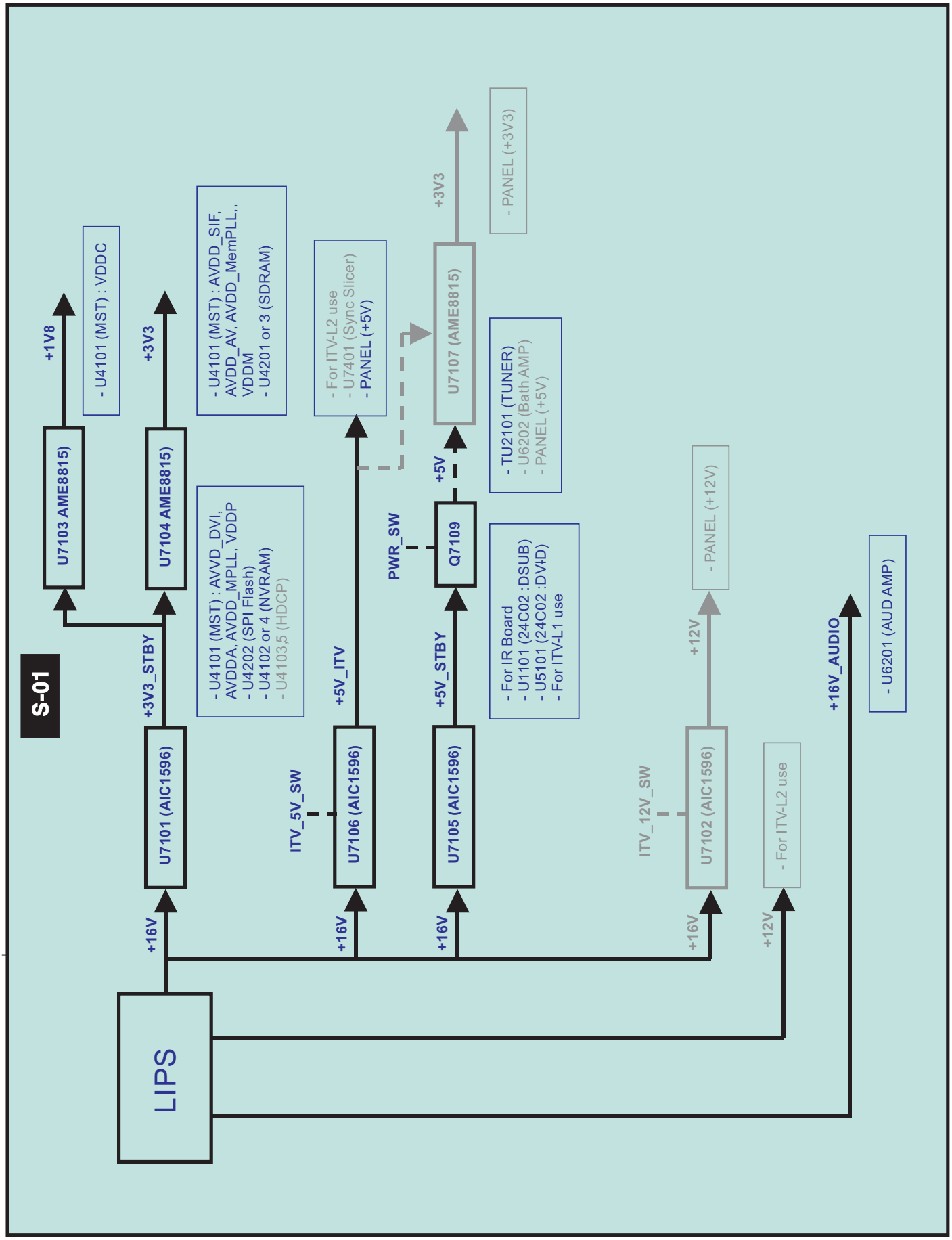


6.2 Block Daigram

Block Diagram

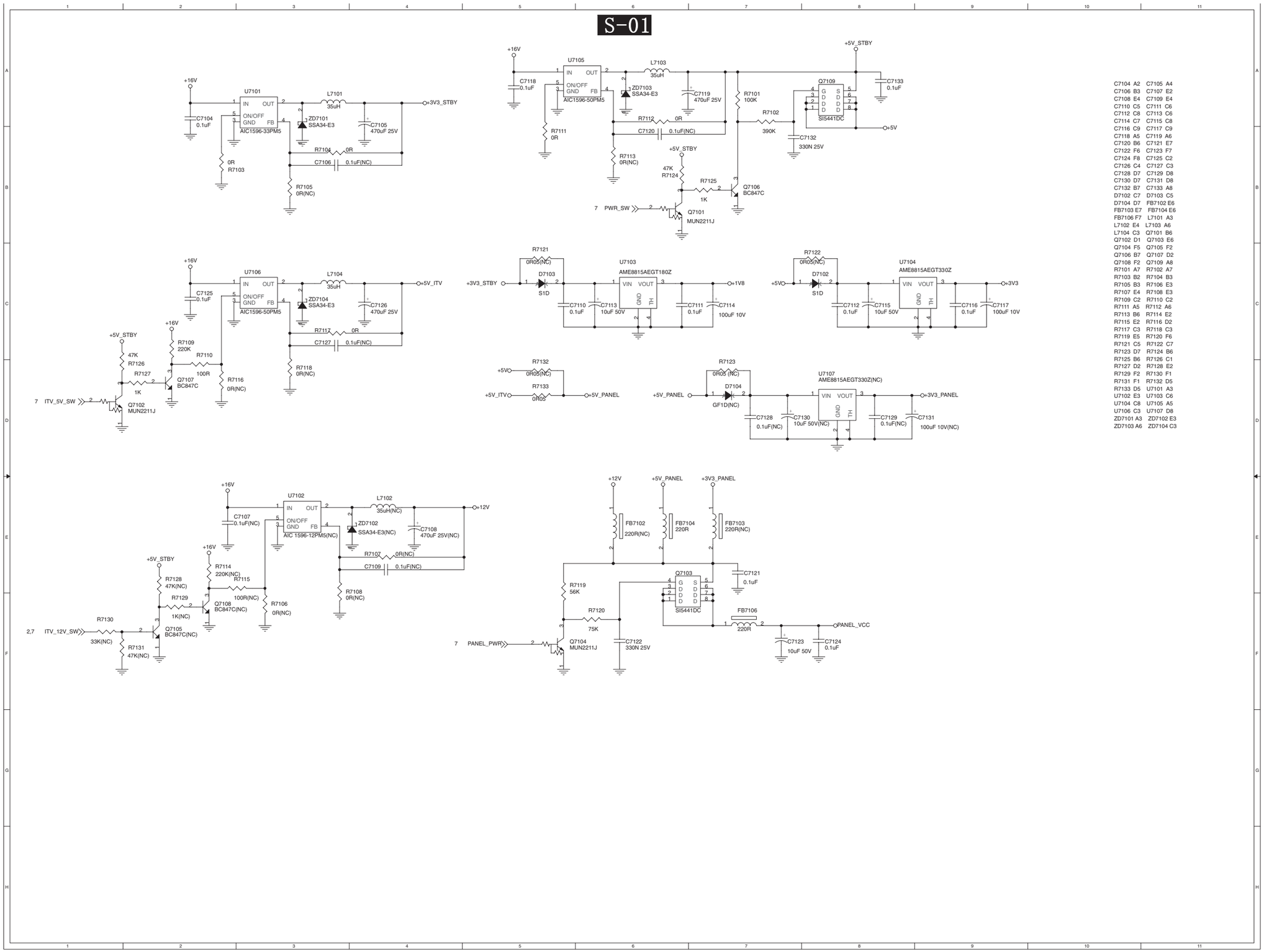


Power Management



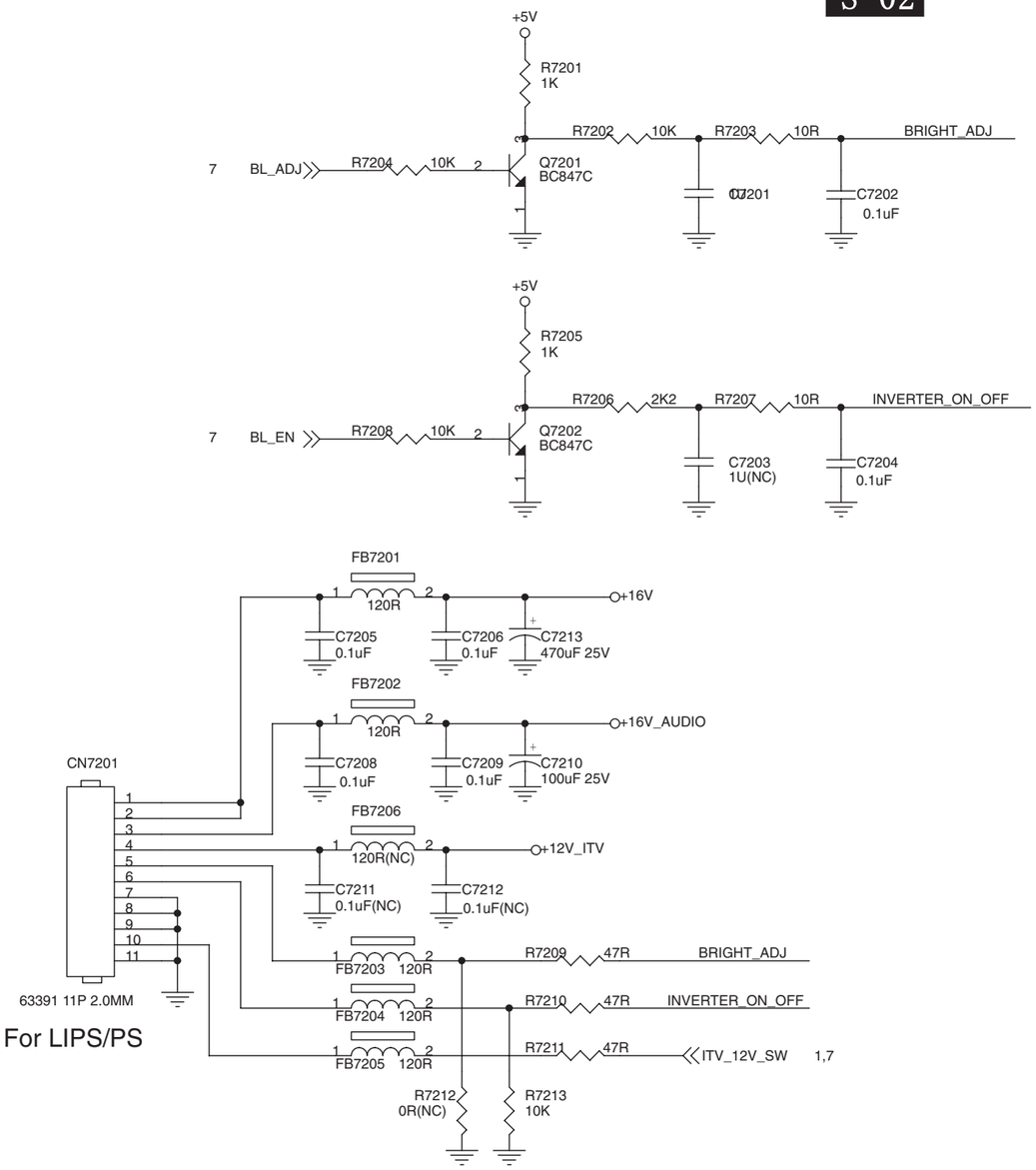
# 7. Circuit Diagrams and PWB Layouts

Scaler Board Schematic Daigram-DC-DC Power



Scaler Board Schematic Diagram-lips&Inverter I/F

S-02

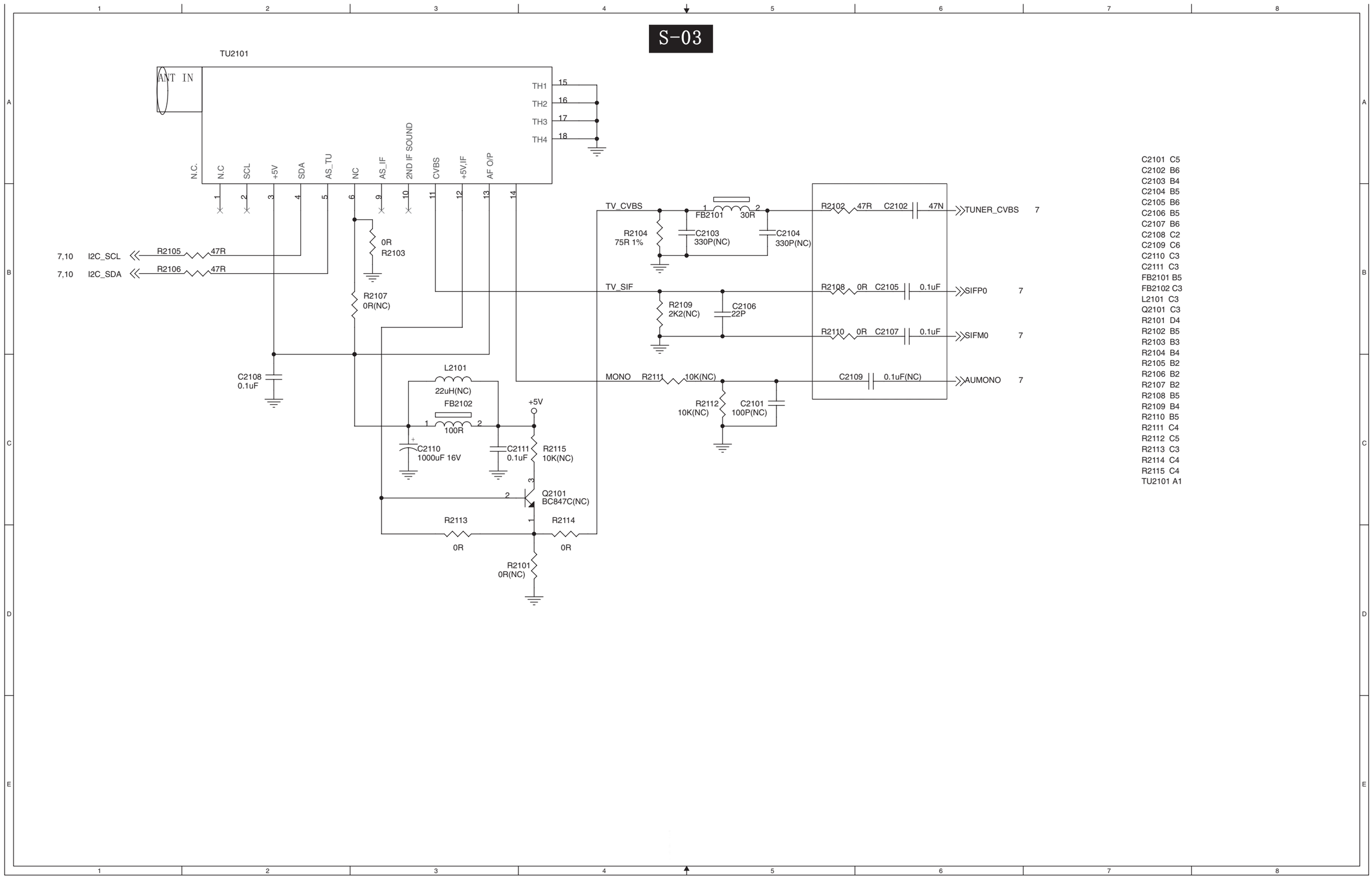



For LIPS/PS

CN7201 C2
C7201 A4
C7202 A4
C7203 B4
C7204 B4
C7205 C2
C7206 C3
C7208 C2
C7209 C3
C7210 C3
C7211 C2
C7212 C3
C7213 C3
FB7201 B3
FB7202 C3
FB7203 D3
FB7204 D3
FB7205 D3
FB7206 C3
Q7201 A3
Q7202 B3
R7201 A3
R7202 A3
R7203 A4
R7204 A3
R7205 B3
R7206 B3
R7207 B4
R7208 B3
R7209 D3
R7210 D3
R7211 D3
R7212 D3
R7213 D3

# 7. Circuit Diagrams and PWB Layouts

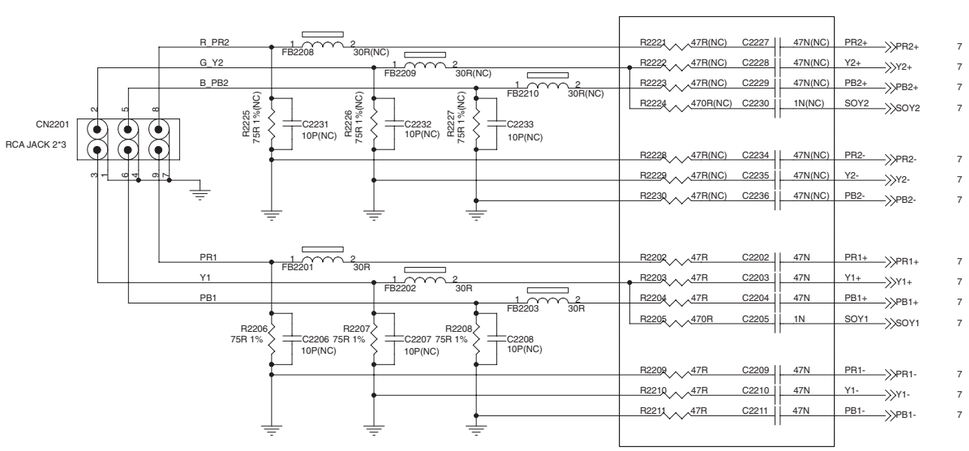
Scaler Board Schemtic Daigram-Tuner

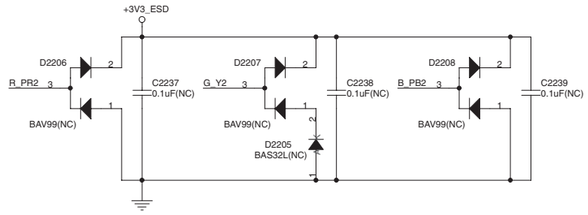


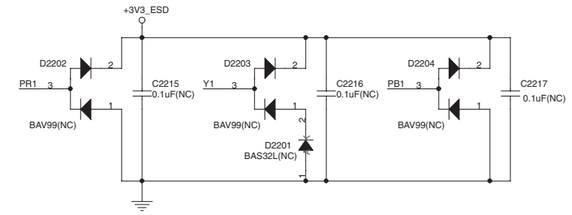

C2101 C5
C2102 B6
C2103 B4
C2104 B5
C2105 B6
C2106 B5
C2107 B6
C2108 C2
C2109 C6
C2110 C3
C2111 C3
FB2101 B5
FB2102 C3
L2101 C3
Q2101 C3
R2101 D4
R2102 B5
R2103 B3
R2104 B4
R2105 B2
R2106 B2
R2107 B2
R2108 B5
R2109 B4
R2110 B5
R2111 C4
R2112 C5
R2113 C3
R2114 C4
R2115 C4
TU2101 A1

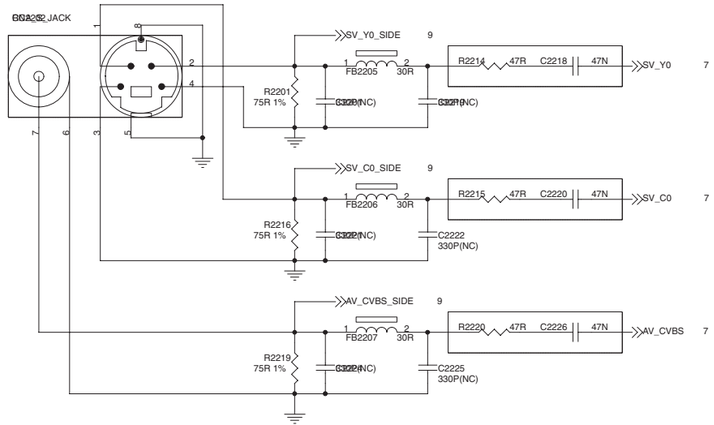
# Scaler Board Schemtic Daigram-Video inputs

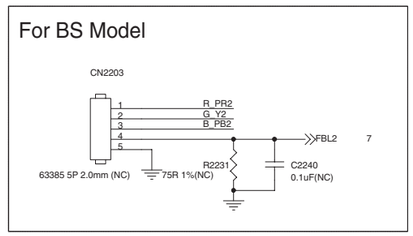
S-04




CN2201 B1
CN2202 D1
CN2203 E7
C2201 E3
C2202 B5
C2203 B5
C2204 C5
C2205 C5
C2206 C2
C2207 C3
C2208 C3
C2209 C5
C2210 C5
C2211 C5
C2215 C7
C2216 C8
C2217 C9
C2218 D4
C2219 E3
C2220 E4
C2221 E3
C2222 E3
C2224 F3
C2225 F3
C2226 F4
C2227 A5
C2228 A5
C2229 A5
C2230 B5
C2231 B2
C2232 B3
C2233 B3
C2234 B5
C2235 B5
C2236 B5
C2237 A7
C2238 A8
C2239 A9
C2240 E8
D2201 C8
D2202 C6
D2203 C7
D2204 C8
D2205 B8
D2206 A6
D2207 A8
D2208 A9
FB2201 B2
FB2202 B3
FB2203 B3
FB2205 D3
FB2206 E3
FB2207 F3
FB2208 A2
FB2209 A3
FB2210 A3
R2201 D3
R2202 B4
R2203 B4
R2204 C4
R2205 C4
R2206 C2
R2207 C3
R2208 C3
R2209 C4
R2210 C4
R2211 C4
R2214 D4
R2215 E4
R2216 E3
R2219 F3
R2220 F4
R2221 A4
R2222 A4
R2223 A4
R2224 B4
R2225 B2
R2226 B3
R2227 B3
R2228 B4
R2229 B4
R2230 B4
R2231 E7

# 7. Circuit Diagrams and PWB Layouts

Scaler Board Schemtic Daigram-DSUB input

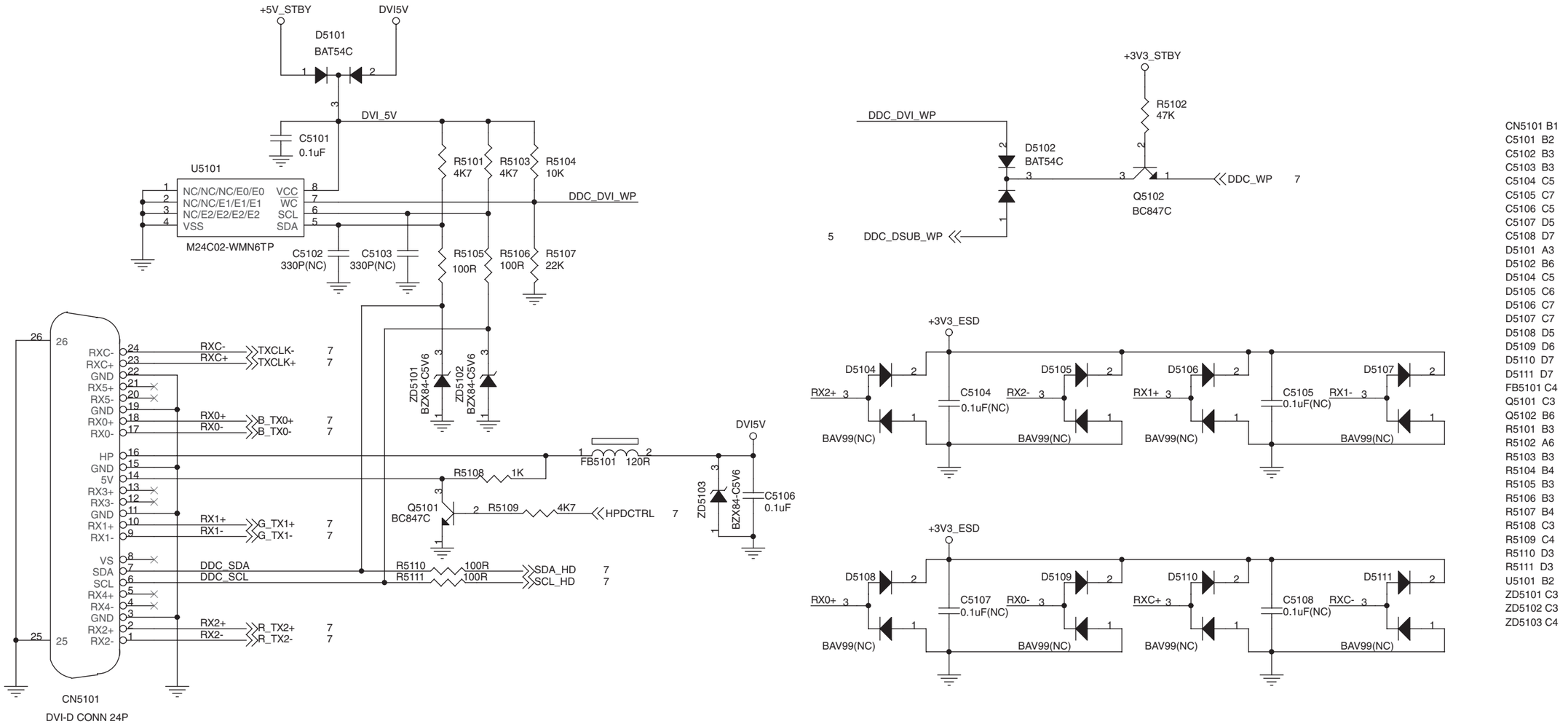
S-05

CN1101 C4 CN1102 C1
C1101 C5 C1102 A3
C1103 B5 C1104 B6
C1105 B7 C1106 B3
C1107 B3 C1108 B2
C1109 C8 C1110 C8
C1111 C8 C1112 C8
C1113 C8 C1114 C8
C1115 D8 D1101 A3
D1102 B5 D1103 B6
D1104 B7 FB1101 C6
FB1102 C6 FB1103 C6
FB1104 C5 Q1101 B1
R1101 A4 R1102 A4
R1103 A4 R1104 B4
R1105 B4 R1106 B4
R1107 B1 R1108 B2
R1109 C1 R1110 B3
R1111 C2 R1112 C2
R1113 C7 R1114 C7
R1115 C3 R1116 C7
R1117 C7 R1118 C6
R1119 C6 R1120 C6
R1121 C2 R1122 C7
R1123 C7 R1124 D7
R1125 D4 R1126 D4
R1127 D3 R1128 D4
R1129 B3 R1130 C3
R1131 B5 U1101 A2
U1102 C2 ZD1101 C4
ZD1102 C4 ZD1103 C5
ZD1104 D3 ZD1105 D4

+5V_STBY
VGA5V
D1101
BAT54C
VGA_5V
C1102
0.1uF
U1101
NC/NC/NC/E0/E0
NC/NC/E1/E1/E1
NC/E2/E2/E2/E2
VSS
VCC
WC
SCL
SDA
M24C02-WMN6TP
R1102 4K7
R1101 4K7
R1103 10K
DDC_DSUB_WP 6
C1106 330P(NC)
C1107 330P(NC)
R1104 100R
R1105 100R
R1106 22K
+3V3_STBY
R1107 10K(NC)
RS232_SW 7
Q1101 BC847C(NC)
R1108 47R(NC)
DDCSDA
VGA_5V
C1108 0.1uF(NC)
R1109 10K(NC)
U1102
R1110 0R05
R1129 0R05
R1111 0R05(NC)
TXD 7,9
R1112 0R05(NC)
RXD 7,9
DDC_SDA
DDC_SCL
CN1102
63132 2P 2.54mm(NC)
S1
S2
S3
E
1Y0
1Y1
2Y0
2Y1
3Y0
3Y1
1Z
2Z
3Z
VCC
GND
VEE
74LV4053PW(NC)
R1115 0R05
R1130 0R05
HS
VS
R1121 47R(NC)
DDCSCL
CN1101
D-SUB 15PIN F
FB1104 120R
VGA5V
C1101 0.1uF
ZD1101 BZX84-C5V6
ZD1102 BZX84-C5V6
ZD1103 BZX84-C5V6
R1125 100R
R1126 100R
HS_RGB 7
VS_RGB 7
ZD1104 BZX84-C5V6
ZD1105 BZX84-C5V6
R1127 2K2
R1128 2K2
+3V3_STBY
R1131 10K
+3V3_ESD
D1102
D1103
D1104
BAV99
C1103 0.1uF
C1104 0.1uF
C1105 0.1uF
R
G
B
FB1101 30R
FB1102 30R
FB1103 30R
R1118 75R 1%
R1119 75R 1%
R1120 75R 1%
R-
G-
B-
R1113 47R C1109 47N RIN+ 7
R1114 47R C1110 47N GIN+ 7
R1116 47R C1111 47N BIN+ 7
R1117 47R C1112 47N SOG 7
R1122 47R C1113 47N RIN- 7
R1123 47R C1114 47N GIN- 7
R1124 47R C1115 47N BIN- 7

Scaler Board Schemtic Diagram-DVI-D input

S-06




CN5101 B1
C5101 B2
C5102 B3
C5103 B3
C5104 C5
C5105 C7
C5106 C5
C5107 D5
C5108 D7
D5101 A3
D5102 B6
D5104 C5
D5105 C6
D5106 C7
D5107 C7
D5108 D5
D5109 D6
D5110 D7
D5111 D7
FB5101 C4
Q5101 C3
Q5102 B6
R5101 B3
R5102 A6
R5103 B3
R5104 B4
R5105 B3
R5106 B3
R5107 B4
R5108 C3
R5109 C4
R5110 D3
R5111 D3
U5101 B2
ZD5101 C3
ZD5102 C3
ZD5103 C4

# 7. Circuit Diagrams and PWB Layouts

Scaler Board Schemtic Daigram-MST96885LD/ALD

S-07

+3.3AVDD for AVDD_DVI

+3.3AVDD for AVDDA

+3.3V for AVDD_MPLL

+3.3V for AVDD_SIF

+3.3V for AVDD_AU

+3.3V for AVDD_MemPLL

U4101

MST96885LD/ALD -LF

POWER ON RESET

ISP & Debug PORT

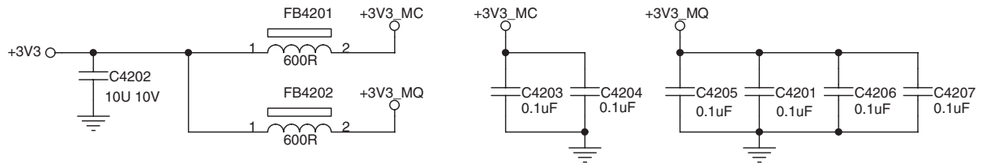
NVRAM

HDCP KEY

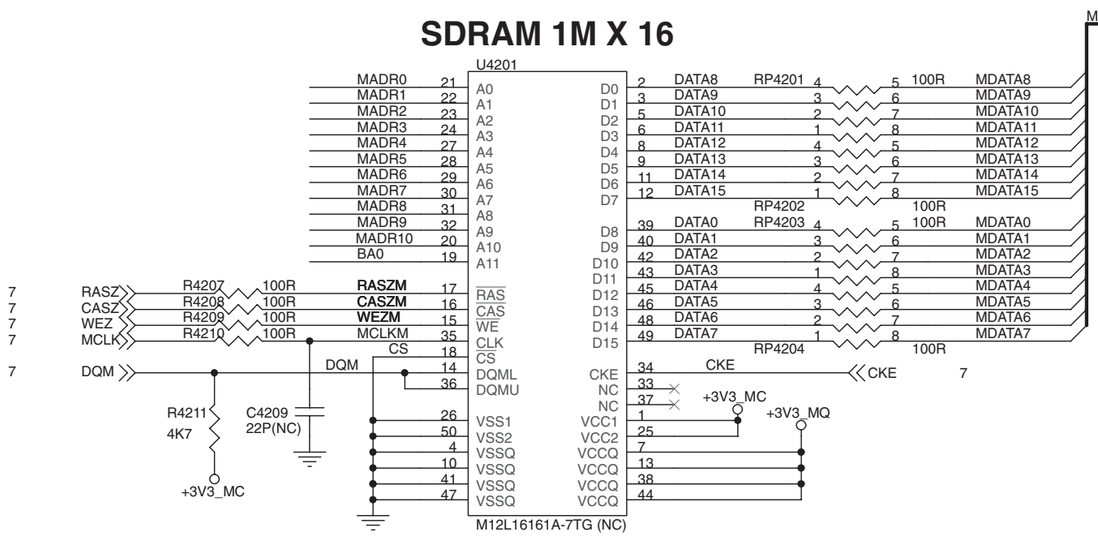

CN4101 C8 C4101 B3
C4102 A3 C4103 A6
C4104 A1 C4105 A1
C4106 A2 C4107 A3
C4108 A3 C4109 A6
C4110 A6 C4111 A6
C4112 A7 C4113 B1
C4114 B1 C4115 B1
C4116 B1 C4117 B3
C4118 B2 C4119 C1
C4120 C1 C4121 C1
C4122 C2 C4123 C2
C4124 C2 C4125 C2
C4126 C2 C4127 C2
C4129 C1 C4130 C1
C4131 C1 C4132 C2
C4133 C2 C4134 C2
C4135 D3 C4136 D3
C4137 D3 C4138 D1
C4139 D1 C4140 D8
C4141 E1 C4142 E1
C4143 E1 C4144 E1
C4145 E7 C4146 F1
C4147 F1 C4148 F1
C4149 F2 C4150 F2
C4151 F2 C4152 A8
D4101 A3 FB4101 E1
FB4102 A1 FB4103 A1
FB4104 B1 FB4105 B1
FB4106 C1 FB4107 D1
FB4108 E1 FB4109 F1
R4101 F3 R4102 A3
R4103 A6 R4104 A3
R4105 A4 R4106 B7
R4107 B3 R4109 B8
R4111 B8 R4114 C8
R4115 C8 R4118 D2
R4119 D2 R4120 D2
R4121 D3 R4122 D3
R4123 B6 R4124 B6
R4125 D3 R4126 D3
R4127 D3 R4128 D3
R4129 E3 R4130 E3
R4131 B6 R4132 B6
R4133 E3 R4134 E3
R4135 E3 R4136 E3
R4137 D8 R4138 D8
R4139 D8 R4140 F6
R4141 F6 R4142 F6
R4143 F3 R4144 F4
R4145 F6 R4146 F3
R4147 E7 R4148 E8
R4149 E8 R4150 E8
R4151 F6 R4152 F6
R4153 F3 R4154 F3
R4155 F6 R4156 F6
R4157 F3 R4158 F4
R4159 F4 R4160 F5
R4161 F3 R4162 F4
R4163 F6 R4164 F6
R4165 F3 R4166 F6
R4167 F6 R4168 F4
R4169 F6 R4170 F4
R4171 F4 R4172 F4
R4173 F5 R4174 F6
R4175 F6 R4176 F3
R4177 F3 R4179 F3
R4182 F3 R4183 G3
R4184 G3 R4185 A7
R4186 A7 R4187 A7
R4188 B6 R4189 B6
TP4102 A5 TP4104 B6
TP4105 D3 TP4106 D3
TP4107 C6 TP4108 C6
TP4109 B6 TP4110 B6
TP4111 B6 U4101 B3
U4102 D7 U4103 E7
U4104 E7 U4105 F7
U4106 A8 X4101 A3

Scaler Board Schemtic Daigram-flash rom&sdram

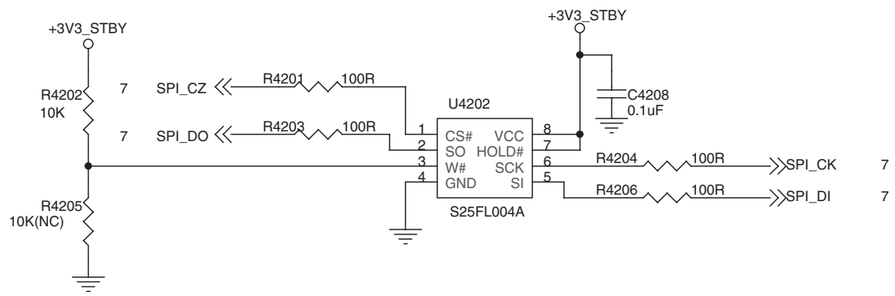
S-08




## SDRAM 1M X 16

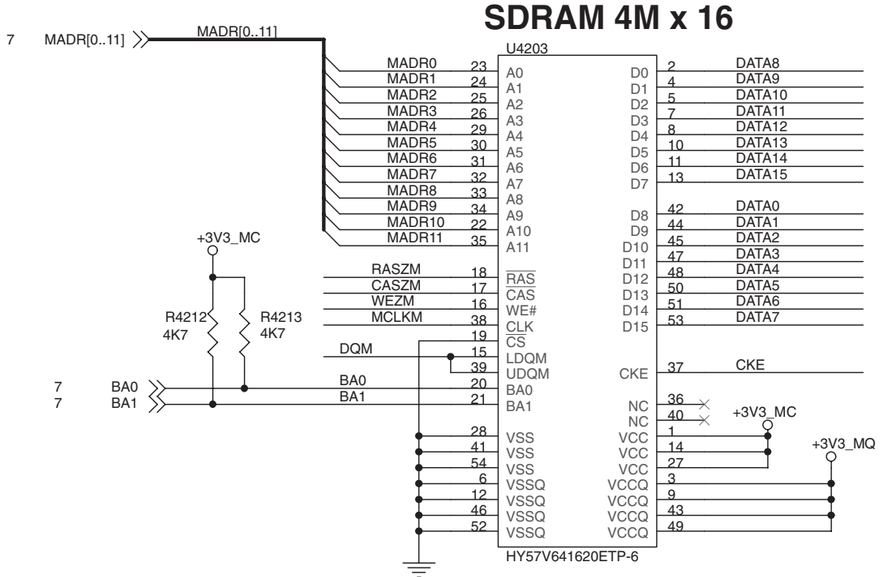

U4201
MADR0 MADR1 MADR2 MADR3 MADR4 MADR5 MADR6 MADR7 MADR8 MADR9 MADR10 BA0
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11
RASZM CASZM WEZM MCLKM
RAS CAS WE CLK CS
DQM
DQML DQMU
VSS1 VSS2 VSSQ VSSQ VSSQ VSSQ
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15
DATA8 DATA9 DATA10 DATA11 DATA12 DATA13 DATA14 DATA15
DATA0 DATA1 DATA2 DATA3 DATA4 DATA5 DATA6 DATA7
RP4201 RP4202 RP4203 RP4204
100R
MDATA[0..15]
MDATA0 MDATA1 MDATA2 MDATA3 MDATA4 MDATA5 MDATA6 MDATA7 MDATA8 MDATA9 MDATA10 MDATA11 MDATA12 MDATA13 MDATA14 MDATA15
CKE
NC NC
VCC1 VCC2 VCCQ VCCQ VCCQ VCCQ
+3V3_MC
+3V3_MQ
R4207 R4208 R4209 R4210
R4211 4K7
C4209 22P(NC)
M12L16161A-7TG (NC)

## SPI Flash ROM




C4201 A3
C4202 A1
C4203 A2
C4204 A3
C4205 A3
C4206 A3
C4207 A4
C4208 B7
C4209 C2
FB4201 A2
FB4202 A2
RP4201 B3
RP4202 B3
RP4203 B3
RP4204 B3
R4201 B6
R4202 B5
R4203 B6
R4204 B7
R4205 B5
R4206 B7
R4207 B1
R4208 B1
R4209 B1
R4210 C1
R4211 C1
R4212 D1
R4213 D1
U4201 B2
U4202 B6
U4203 D2

## SDRAM 4M x 16

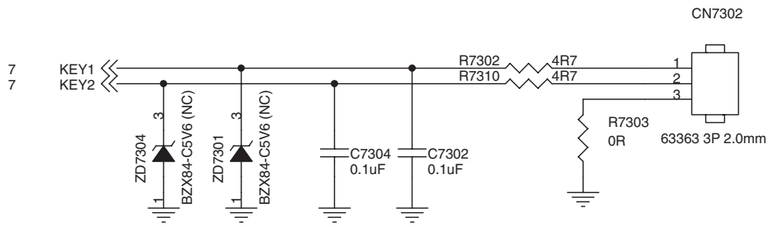

U4203
MADR[0..11]
MADR0 MADR1 MADR2 MADR3 MADR4 MADR5 MADR6 MADR7 MADR8 MADR9 MADR10 MADR11
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11
RASZM CASZM WEZM MCLKM
RAS CAS WE# CLK CS
LDQM UDQM
BA0 BA1
VSS VSS VSS VSSQ VSSQ VSSQ VSSQ
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15
DATA8 DATA9 DATA10 DATA11 DATA12 DATA13 DATA14 DATA15
DATA0 DATA1 DATA2 DATA3 DATA4 DATA5 DATA6 DATA7
CKE
NC NC
VCC VCC VCC VCCQ VCCQ VCCQ VCCQ
+3V3_MC
+3V3_MQ
R4212 4K7
R4213 4K7
DQM
BA0 BA1
HY57V641620ETP-6

# 7. Circuit Diagrams and PWB Layouts

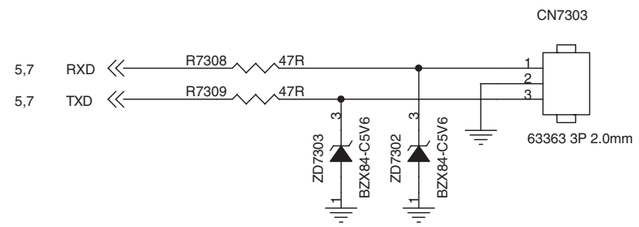
Scaler Board Schemtic Daigram-Key,IR compair,side I/F

S-09

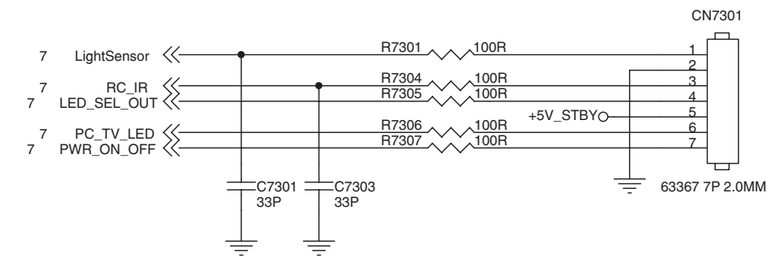
## For Key BOARD



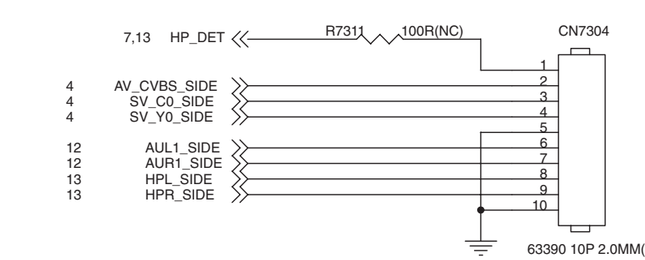

## For Compair I/F




## For IR BOARD




## Reserved for SIDE AV

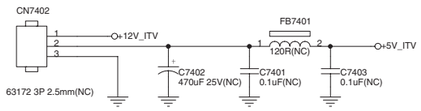



CN7301 B3
CN7302 A3
CN7303 A6
CN7304 B6
C7301 C2
C7302 A2
C7303 C2
C7304 A2
R7301 B2
R7302 A3
R7303 A3
R7304 C2
R7305 C2
R7306 C2
R7307 C2
R7308 A5
R7309 A5
R7310 A3
R7311 B5
ZD7301 A2
ZD7302 A5
ZD7303 A5
ZD7304 A1

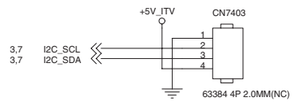
Scaler Board Schemtic Daigram-ITV I/F

S-10

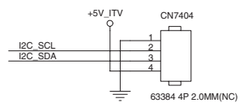
## Power for I-BOARD (Level 2)



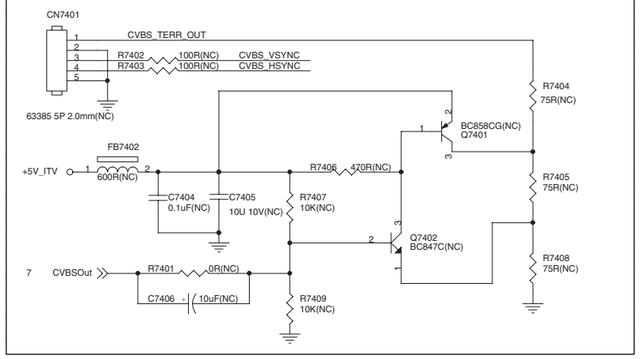

## Control I/F for I-BOARD (Level 2)



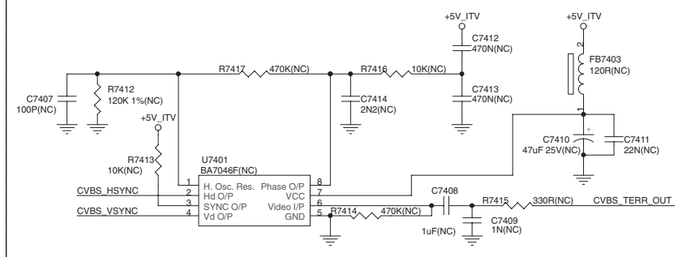

## 2nd Control I/F



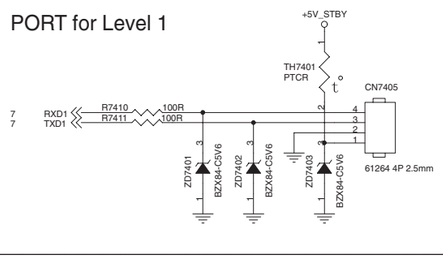

## Video I/F for I-BOARD (Level 2)




## CVBS Sync Slicer (Level 2)




## PORT for Level 1

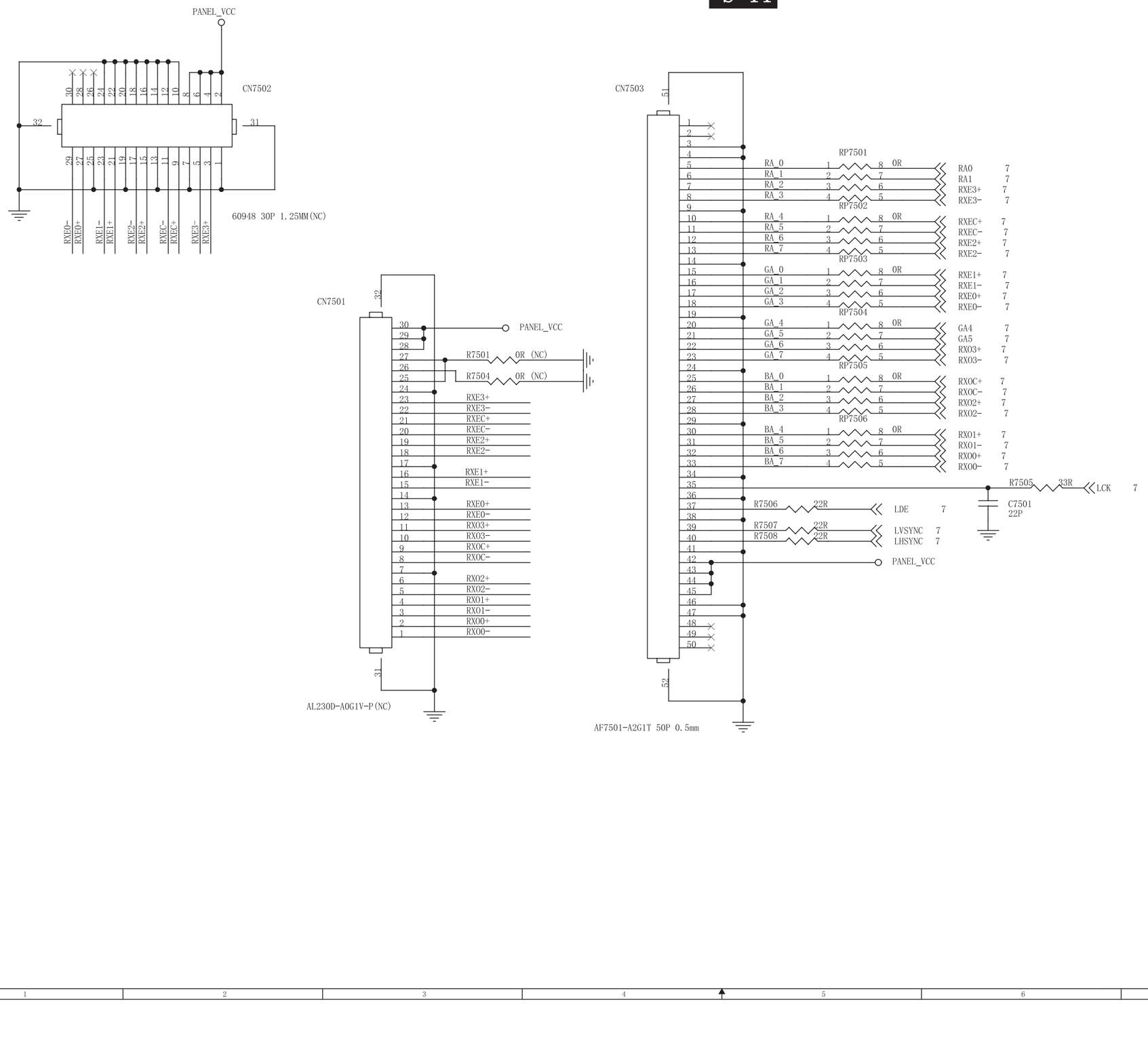



CN7401 A5
CN7402 A1
CN7403 C2
CN7404 D2
CN7405 F3
C7401 A2
C7402 A2
C7403 A3
C7404 B5
C7405 B5
C7406 C5
C7407 D5
C7408 D7
C7409 E7
C7410 D7
C7411 D8
C7412 D7
C7413 D7
C7414 D6
FB7401 A2
FB7402 B5
FB7403 D7
Q7401 B7
Q7402 B6
R7401 B5
R7402 A5
R7403 A5
R7404 A7
R7405 B7
R7406 B6
R7407 B6
R7408 B7
R7409 C6
R7410 F2
R7411 F2
R7412 D5
R7413 D5
R7414 E6
R7415 D7
R7416 D6
R7417 D6
TH7401 E3
U7401 D5
ZD7401 F2
ZD7402 F2
ZD7403 F3

# 7. Circuit Diagrams and PWB Layouts

Scaler Board Schemtic Daigram-panel I/F

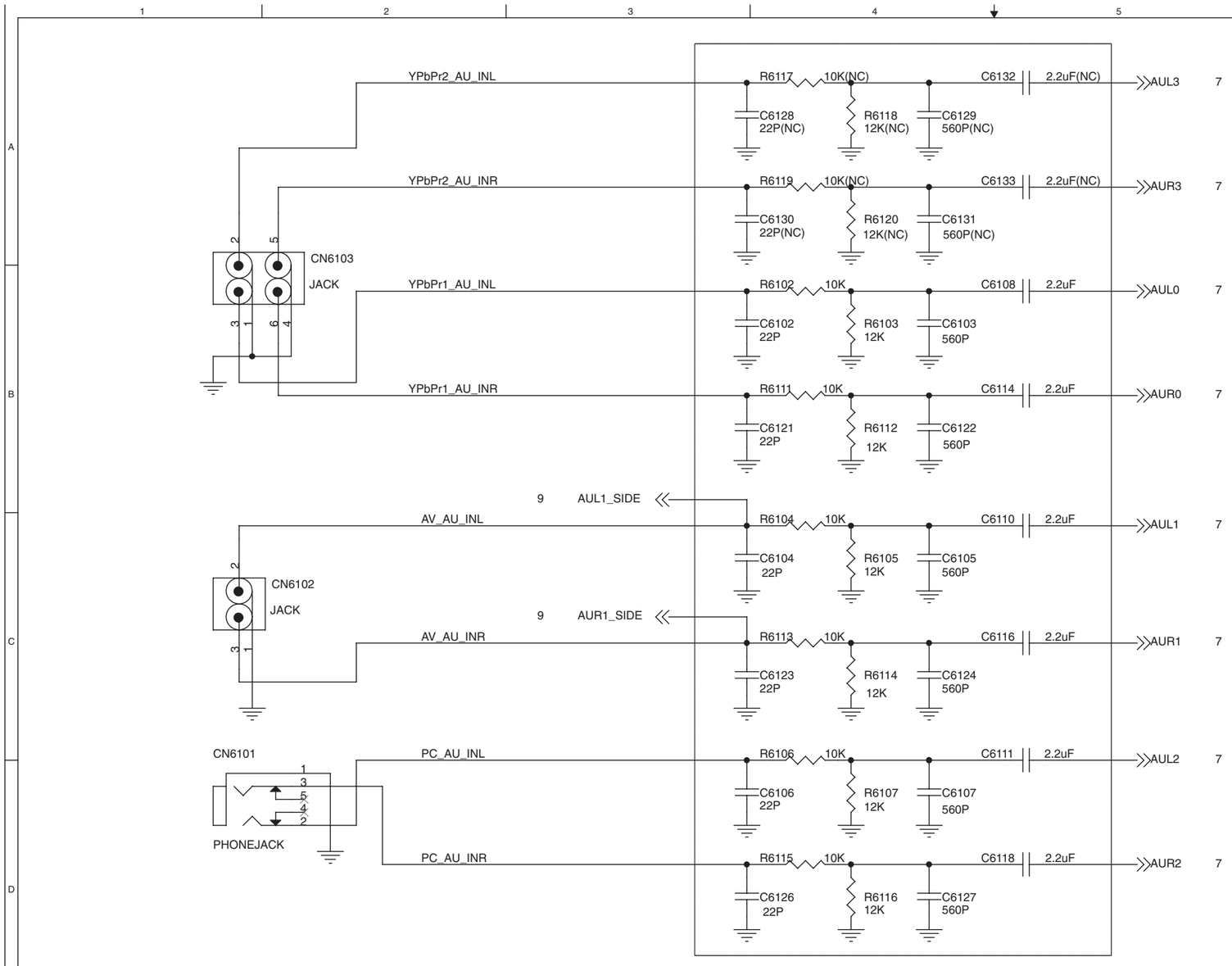
S-11




CN7501 B3
CN7502 A1
CN7503 A4
C7501 C6
RP7501 A5
RP7502 B5
RP7503 B5
RP7504 B5
RP7505 B5
RP7506 C5
R7501 B3
R7504 B3
R7505 C6
R7506 C5
R7507 C5
R7508 C5

Scaler Board Schemtic Daigram-Audio I/F

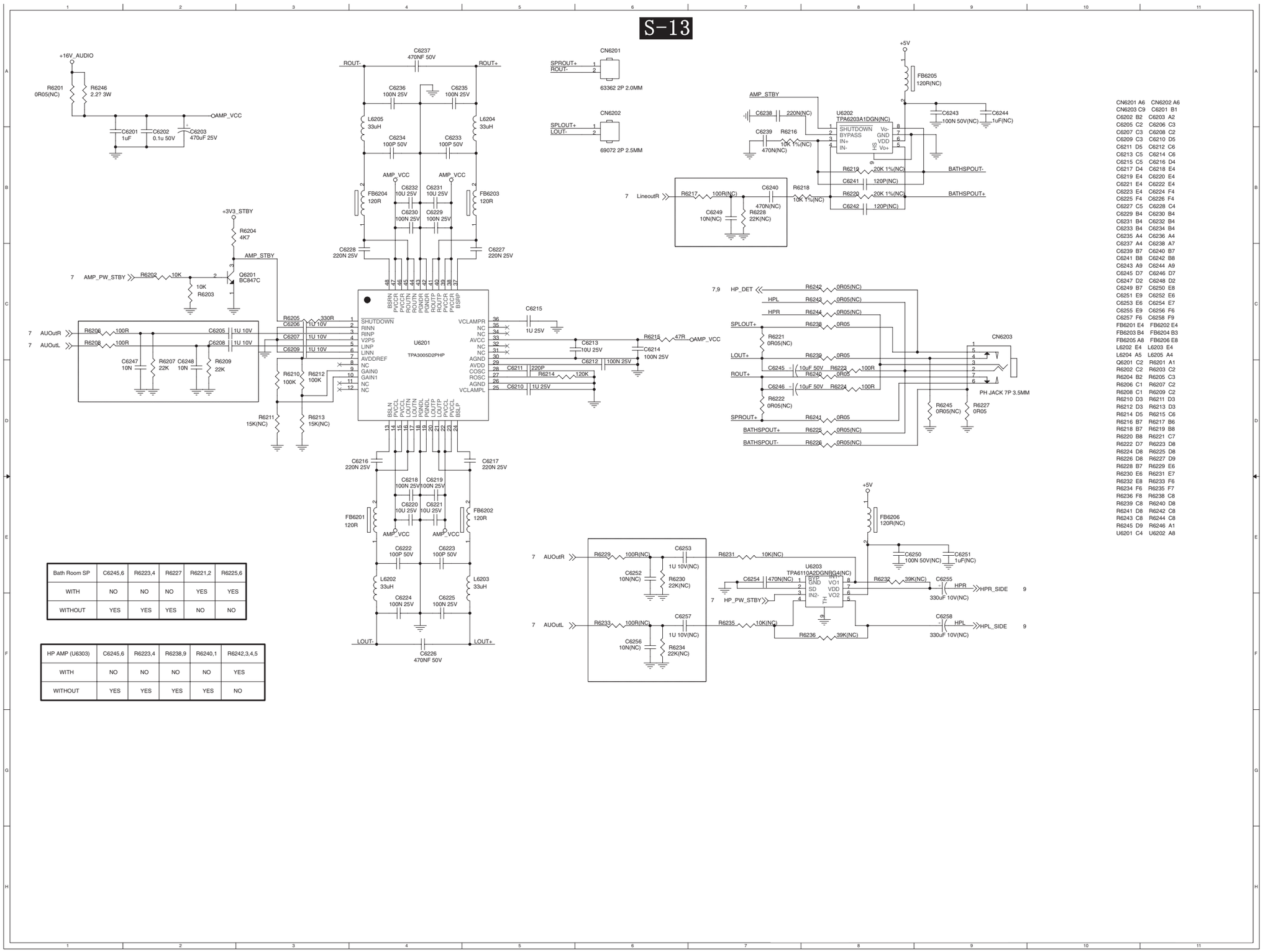
S-12




CN6101 C1
CN6102 C1
CN6103 A1
C6102 B3
C6103 B4
C6104 C3
C6105 C4
C6106 D3
C6107 D4
C6108 B5
C6110 B5
C6111 C5
C6114 B5
C6116 C5
C6118 D5
C6121 B3
C6122 B4
C6123 C3
C6124 C4
C6126 D3
C6127 D4
C6128 A3
C6129 A4
C6130 A3
C6131 A4
C6132 A5
C6133 A5
R6102 B4
R6103 B4
R6104 B4
R6105 C4
R6106 C4
R6107 C4
R6111 B4
R6112 B4
R6113 C4
R6114 C4
R6115 D4
R6116 D4
R6117 A4
R6118 A4
R6119 A4
R6120 A4

# 7. Circuit Diagrams and PWB Layouts

Scaler Board Schemtic Daigram-Audio AMP

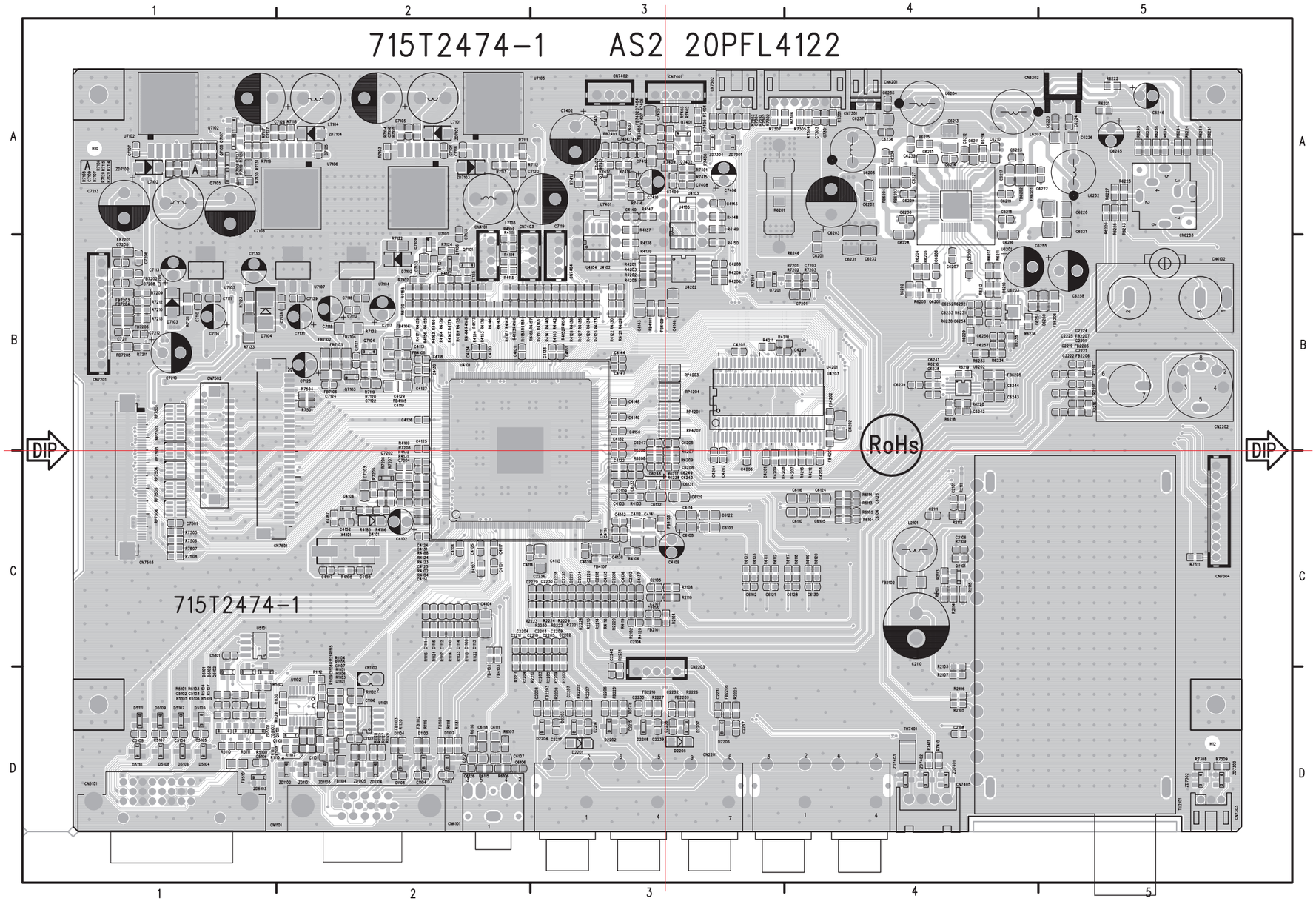



| | | | | | |
|---|---|---|---|---|---|
| Bath Room SP | C6245,6 | R6223,4 | R6227 | R6221,2 | R6225,6 |
| WITH | NO | NO | NO | YES | YES |
| WITHOUT | YES | YES | YES | NO | NO |

| | | | | | |
|---|---|---|---|---|---|
| HP AMP (U6303) | C6245,6 | R6223,4 | R6238,9 | R6240,1 | R6242,3,4,5 |
| WITH | NO | NO | NO | NO | YES |
| WITHOUT | YES | YES | YES | YES | NO |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CN6201 | A6 | CN6202 | A6 | | | | | | |
| CN6203 | C9 | C6201 | B1 | | | | | | |
| C6202 | B2 | C6203 | A2 | | | | | | |
| C6205 | C2 | C6206 | C3 | | | | | | |
| C6207 | C3 | C6208 | C2 | | | | | | |
| C6209 | C3 | C6210 | D5 | | | | | | |
| C6211 | D5 | C6212 | C6 | | | | | | |
| C6213 | C5 | C6214 | C6 | | | | | | |
| C6215 | C5 | C6216 | D4 | | | | | | |
| C6217 | D4 | C6218 | E4 | | | | | | |
| C6219 | E4 | C6220 | E4 | | | | | | |
| C6221 | E4 | C6222 | E4 | | | | | | |
| C6223 | E4 | C6224 | F4 | | | | | | |
| C6225 | F4 | C6226 | F4 | | | | | | |
| C6227 | C5 | C6228 | C4 | | | | | | |
| C6229 | B4 | C6230 | B4 | | | | | | |
| C6231 | B4 | C6232 | B4 | | | | | | |
| C6233 | B4 | C6234 | B4 | | | | | | |
| C6235 | A4 | C6236 | A4 | | | | | | |
| C6237 | A4 | C6238 | A7 | | | | | | |
| C6239 | B7 | C6240 | B7 | | | | | | |
| C6241 | B8 | C6242 | B8 | | | | | | |
| C6243 | A9 | C6244 | A9 | | | | | | |
| C6245 | D7 | C6246 | D7 | | | | | | |
| C6247 | D2 | C6248 | D2 | | | | | | |
| C6249 | B7 | C6250 | E8 | | | | | | |
| C6251 | E9 | C6252 | E6 | | | | | | |
| C6253 | E6 | C6254 | E7 | | | | | | |
| C6255 | E9 | C6256 | F6 | | | | | | |
| C6257 | F6 | C6258 | F9 | | | | | | |
| FB6201 | E4 | FB6202 | E4 | | | | | | |
| FB6203 | B4 | FB6204 | B3 | | | | | | |
| FB6205 | A8 | FB6206 | E8 | | | | | | |
| L6202 | E4 | L6203 | E4 | | | | | | |
| L6204 | A5 | L6205 | A4 | | | | | | |
| Q6201 | C2 | R6201 | A1 | | | | | | |
| R6202 | C2 | R6203 | C2 | | | | | | |
| R6204 | B2 | R6205 | C3 | | | | | | |
| R6206 | C1 | R6207 | C2 | | | | | | |
| R6208 | C1 | R6209 | C2 | | | | | | |
| R6210 | D3 | R6211 | D3 | | | | | | |
| R6212 | D3 | R6213 | D3 | | | | | | |
| R6214 | D5 | R6215 | C6 | | | | | | |
| R6216 | B7 | R6217 | B6 | | | | | | |
| R6218 | B7 | R6219 | B8 | | | | | | |
| R6220 | B8 | R6221 | C7 | | | | | | |
| R6222 | D7 | R6223 | D8 | | | | | | |
| R6224 | D8 | R6225 | D8 | | | | | | |
| R6226 | D8 | R6227 | D9 | | | | | | |
| R6228 | B7 | R6229 | E6 | | | | | | |
| R6230 | E6 | R6231 | E7 | | | | | | |
| R6232 | E8 | R6233 | F6 | | | | | | |
| R6234 | F6 | R6235 | F7 | | | | | | |
| R6236 | F8 | R6238 | C8 | | | | | | |
| R6239 | C8 | R6240 | D8 | | | | | | |
| R6241 | D8 | R6242 | C8 | | | | | | |
| R6243 | C8 | R6244 | C8 | | | | | | |
| R6245 | D9 | R6246 | A1 | | | | | | |
| U6201 | C4 | U6202 | A8 | | | | | | |

Scaler Board Layout




C1101 D2 C4116 C2 C6201 B4 C7124 B2 D2207 D3 Q7102 A1 R2224 C3 R4176 B2 R6227 A5 R7402 A3
C1102 D2 C4117 C2 C6202 A4 C7125 A2 D2208 D3 Q7103 B2 R2225 D3 R4177 B2 R6228 C3 R7403 A3
C1103 D2 C4118 B2 C6203 A4 C7126 A1 D4101 C2 Q7104 B2 R2226 D3 R4179 B2 R6229 B4 R7404 A3
C1104 D2 C4119 B2 C6205 B3 C7127 A2 D5101 D1 Q7105 A1 R2227 D3 R4182 B2 R6230 B4 R7405 A3
C1105 D2 C4120 B2 C6206 B4 C7128 B2 D5102 D1 Q7106 B2 R2228 C3 R4183 B2 R6231 B4 R7406 A3
C1106 D2 C4121 B2 C6207 B4 C7129 B2 D5104 D1 Q7107 A1 R2229 C3 R4184 B2 R6232 B4 R7407 A3
C1107 D2 C4122 C3 C6208 C3 C7130 B1 D5105 D1 Q7108 A1 R2230 C3 R4185 C2 R6233 B4 R7408 A3
C1108 D2 C4123 C2 C6209 B4 C7131 B2 D5106 D1 Q7109 B2 R2231 D3 R4186 C2 R6234 B4 R7409 A3
C1109 C2 C4124 C2 C6210 A4 C7132 B2 D5107 D1 Q7201 B3 R4101 B3 R4187 C2 R6235 B4 R7410 D4
C1110 C2 C4125 B2 C6211 A4 C7133 B2 D5108 D1 Q7202 C2 R4102 C2 R4188 C2 R6236 B4 R7411 D4
C1111 C2 C4126 B2 C6212 A4 C7201 B4 D5109 D1 Q7401 A3 R4103 C3 R4189 C2 R6238 A5 R7412 A3
C1112 C2 C4127 B2 C6213 A4 C7202 B4 D5110 D1 Q7402 A3 R4104 C2 R4201 B3 R6239 A5 R7413 A3
C1113 C2 C4129 B2 C6214 A4 C7203 C2 D5111 D1 R1101 D2 R4105 C2 R4202 B3 R6240 A5 R7414 A3
C1114 C2 C4130 B2 C6215 A4 C7204 C2 D7102 B2 R1102 D2 R4106 C3 R4203 B3 R6241 A5 R7415 A3
C1115 C2 C4131 C2 C6216 B4 C7205 B1 D7103 B1 R1103 D2 R4107 C2 R4204 B3 R6242 A5 R7416 A3
C2101 C4 C4132 B3 C6217 A4 C7206 B1 D7104 B1 R1104 D2 R4109 B2 R4205 B3 R6243 A5 R7417 A3
C2102 C3 C4133 B3 C6218 A4 C7208 B1 FB1101 D2 R1105 D2 R4111 B2 R4206 B3 R6244 A5 R7501 B2
C2103 C3 C4134 B2 C6219 A4 C7209 B1 FB1102 D2 R1106 D2 R4114 B2 R4207 C4 R6245 A5 R7504 B2
C2104 C3 C4135 C3 C6220 A5 C7210 B1 FB1103 D2 R1107 D2 R4115 B2 R4208 C3 R6246 A3 R7505 C1
C2105 C3 C4136 C3 C6221 A5 C7211 B1 FB1104 D2 R1108 D2 R4116 C3 R4209 C3 R7101 B2 R7506 C1
C2106 C4 C4137 C3 C6222 A5 C7212 B1 FB2101 C3 R1109 D2 R4119 C3 R4210 B4 R7102 B2 R7507 C1
C2107 C3 C4138 C3 C6223 A4 C7213 A1 FB2102 C4 R1110 D2 R4120 C3 R4211 B3 R7103 A2 R7508 C1
C2108 D4 C4139 C3 C6224 A5 C7301 A4 FB2201 D3 R1111 D2 R4121 B3 R4212 C4 R7104 A2 RP4201 B3
C2109 C3 C4140 A3 C6225 A5 C7302 A3 FB2202 D3 R1112 D2 R4122 B3 R4213 C4 R7105 A2 RP4202 B3
C2110 C4 C4141 C3 C6226 A5 C7303 A4 FB2203 D3 R1113 C2 R4123 C2 R5101 D1 R7106 A1 RP4203 B3
C2111 C4 C4142 C3 C6227 A4 C7304 A3 FB2205 B5 R1114 C2 R4124 C2 R5102 D1 R7107 A1 RP4204 B3
C2201 B5 C4143 B3 C6228 B4 C7401 A3 FB2206 B5 R1115 D2 R4125 C3 R5103 D1 R7108 A1 RP5501 B1
C2202 C3 C4144 B3 C6229 A4 C7402 A3 FB2207 B5 R1116 C2 R4126 B3 R5104 D1 R7109 A1 RP7502 B1
C2203 C3 C4145 A3 C6230 A4 C7403 A3 FB2208 D3 R1117 C2 R4127 B3 R5105 D1 R7110 A1 RP7503 C1
C2204 C2 C4146 B3 C6231 B4 C7404 A3 FB2209 D3 R1118 D2 R4128 B3 R5106 D1 R7111 A2 RP7504 C1
C2205 C3 C4147 B3 C6232 B4 C7405 A3 FB2210 D3 R1119 D2 R4129 B3 R5107 D1 R7112 A2 RP7505 C1
C2206 D3 C4148 B3 C6233 A4 C7406 A3 FB4101 B3 R1120 D2 R4130 B3 R5108 D1 R7113 A2 RP7506 C1
C2207 D3 C4149 B3 C6234 A4 C7407 A3 FB4102 C2 R1121 D2 R4131 C2 R5109 D1 R7114 A1 TH7401 D4
C2208 D3 C4150 B3 C6235 A4 C7408 A3 FB4103 C2 R1122 C2 R4132 C2 R5110 D1 R7115 A1 TU2101 D5
C2209 C3 C4151 B3 C6236 A4 C7409 A3 FB4104 B2 R1123 C2 R4133 B3 R5111 D1 R7116 A1 U1101 D2
C2210 C3 C4152 C2 C6237 A4 C7410 A3 FB4105 B2 R1124 C2 R4134 B3 R6102 C3 R7117 A1 U1102 D2
C2211 C2 C4201 C3 C6238 B4 C7411 A3 FB4106 B2 R1125 D2 R4135 B3 R6103 C3 R7118 A2 U4101 B2
C2215 D3 C4202 B4 C6239 B4 C7412 A3 FB4107 C3 R1126 D2 R4136 B3 R6104 C4 R7119 B2 U4102 B3
C2216 D3 C4203 C4 C6240 C3 C7413 A3 FB4108 C3 R1127 D2 R4137 A3 R6105 C4 R7120 B2 U4103 A3
C2217 D3 C4204 C3 C6241 B4 C7414 A3 FB4109 B3 R1128 D2 R4138 B3 R6106 D2 R7121 B1 U4104 B3
C2218 C3 C4205 B3 C6242 B4 C7501 C1 FB4201 B4 R1129 D2 R4139 B3 R6107 D2 R7122 B2 U4105 B3
C2219 B5 C4206 C3 C6243 B4 CN1101 D2 FB4202 B4 R1130 D2 R4140 B3 R6111 C3 R7123 B1 U4106 C2
C2220 C3 C4207 C3 C6244 B4 CN1102 D2 FB5101 D1 R1131 D2 R4141 B3 R6112 C3 R7124 B2 U4201 B3
C2221 B5 C4208 B3 C6245 A5 CN2201 D3 FB6201 A4 R2101 C4 R4142 B3 R6113 C4 R7125 B2 U4202 B3
C2222 B5 C4209 B3 C6246 A5 CN2202 B5 FB6202 A4 R2102 C3 R4143 B2 R6114 C4 R7126 A1 U4203 B3
C2224 B5 C5101 C1 C6247 B3 CN2203 D3 FB6203 A4 R2103 D4 R4144 B2 R6115 D2 R7127 A1 U5101 C1
C2225 B5 C5102 D1 C6248 C3 CN4101 B2 FB6204 A4 R2104 C3 R4145 B3 R6116 D2 R7128 A1 U6201 A4
C2226 C3 C5103 D1 C6249 C3 CN5101 D1 FB6205 B4 R2105 D4 R4146 B2 R6117 C4 R7129 A1 U6202 B4
C2227 C3 C5104 D1 C6250 B5 CN6101 D2 FB6206 B5 R2106 D4 R4147 A3 R6118 C4 R7130 A1 U6203 B4
C2228 C3 C5105 D1 C6251 B4 CN6102 B5 FB7102 B2 R2107 D4 R4148 A3 R6119 C4 R7131 A1 U7101 A2
C2229 C3 C5106 D1 C6252 B4 CN6103 D4 FB7103 B2 R2108 C3 R4149 A3 R6120 C4 R7132 B2 U7102 A1
C2230 C3 C5107 D1 C6253 B4 CN6201 A4 FB7104 B2 R2109 C4 R4150 B3 R6201 A3 R7133 B1 U7103 B1
C2231 D3 C5108 D1 C6254 B4 CN6202 A5 FB7106 B2 R2110 C3 R4151 B3 R6202 B4 R7201 B4 U7104 B2
C2232 D3 C6102 C3 C6255 B4 CN6203 A5 FB7201 B1 R2111 C4 R4152 B3 R6203 B4 R7202 B4 U7105 A2
C2233 D3 C6103 C3 C6256 B4 CN7201 B1 FB7202 B1 R2112 C4 R4153 B2 R6204 B4 R7203 B4 U7106 A2
C2234 C3 C6104 C4 C6257 B4 CN7301 A4 FB7203 B1 R2113 C4 R4154 B2 R6205 B4 R7204 B3 U7107 B2
C2235 C3 C6105 C4 C6258 B5 CN7302 A3 FB7204 B1 R2114 C4 R4155 B2 R6206 C3 R7205 C2 U7401 A3
C2236 C3 C6106 D2 C7104 A2 CN7303 D5 FB7205 B1 R2115 C4 R4156 B2 R6207 C3 R7206 C2 X4101 C2
C2237 D3 C6107 D2 C7105 A2 CN7304 C5 FB7206 B1 R2201 B5 R4157 B3 R6208 C3 R7207 C2 ZD1101 D2
C2238 D3 C6108 C3 C7106 A2 CN7401 A3 FB7401 A3 R2202 D3 R4158 B2 R6209 C3 R7208 C2 ZD1102 D2
C2239 D3 C6110 C4 C7107 A1 CN7402 A3 FB7402 A3 R2203 D3 R4159 B2 R6210 B4 R7209 B1 ZD1103 D2
C2240 D3 C6111 D2 C7108 A1 CN7403 B3 FB7403 A3 R2204 D2 R4160 B2 R6211 B4 R7210 B1 ZD1104 D2
C4101 C2 C6114 C3 C7109 A1 CN7404 B3 L2101 C4 R2205 D3 R4161 B3 R6212 B4 R7211 B1 ZD1105 D2
C4102 C2 C6116 C4 C7110 B1 CN7405 D4 L6202 A5 R2206 D3 R4162 B2 R6213 B4 R7212 B1 ZD5101 D1
C4103 C3 C6118 D2 C7111 B1 CN7501 B2 L6203 A4 R2207 D3 R4163 B2 R6214 A4 R7213 B1 ZD5102 D1
C4104 C2 C6121 C3 C7112 B2 CN7502 B1 L6204 A4 R2208 D3 R4164 B2 R6215 A4 R7301 A4 ZD5103 D1
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C4106 C2 C6123 C4 C7114 B1 D1101 D2 L7101 A2 R2210 D3 R4166 B2 R6217 C3 R7303 A3 ZD7102 A1
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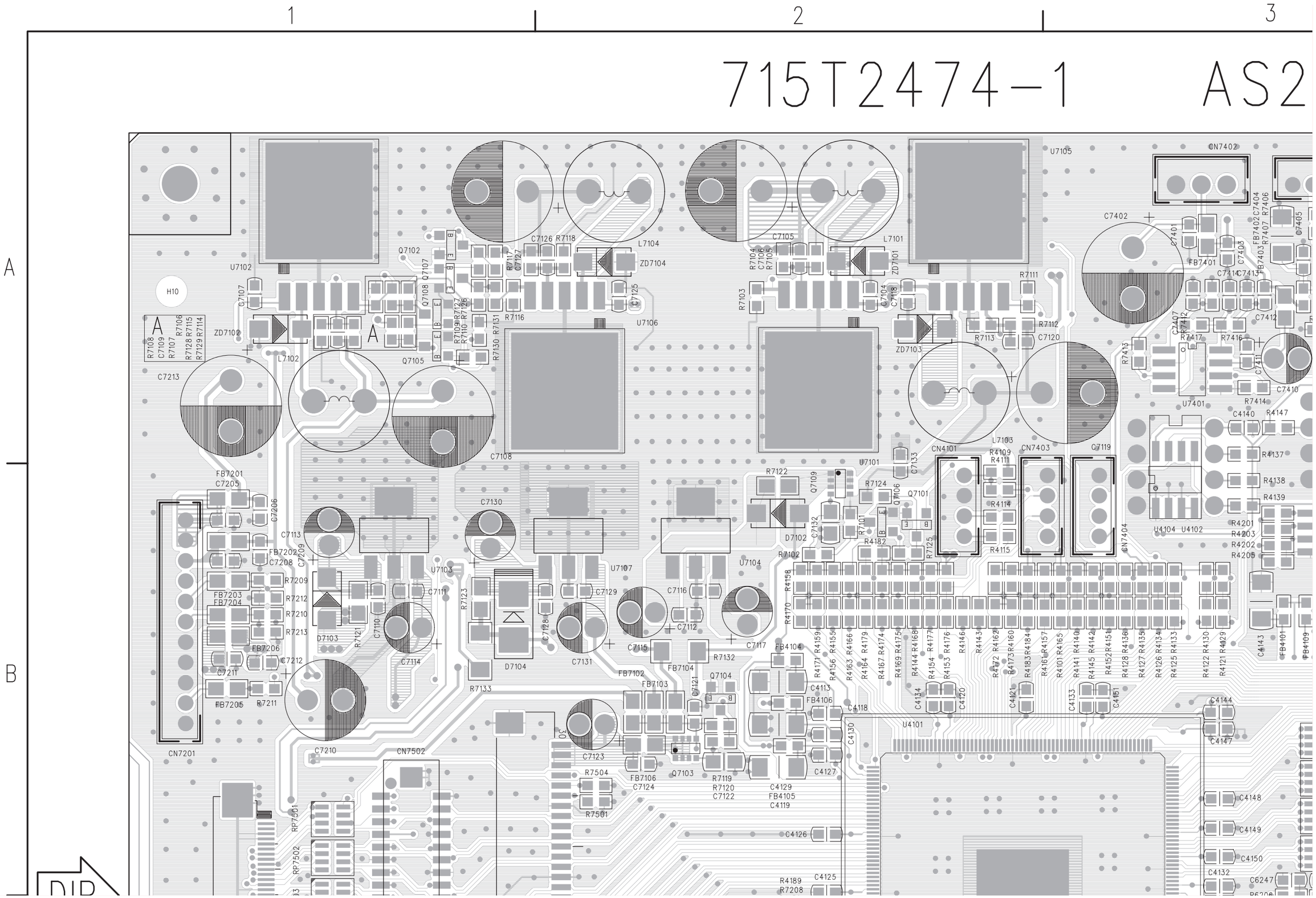
C4112 C3 C6130 C4 C7120 A2 D2203 D3 Q5101 D1 R2220 C3 R4172 B2 R6223 A5 R7309 D5 ZD7304 A3
C4113 B2 C6131 C3 C7121 B2 D2204 D3 Q5102 D1 R2221 C3 R4173 B2 R6224 A5 R7310 A3 ZD7401 D4
C4114 C2 C6132 C3 C7122 B2 D2205 D3 Q6201 B4 R2222 C3 R4174 B2 R6225 A5 R7311 C5 ZD7402 D4
C4115 C3 C6133 C3 C7123 B2 D2206 D3 Q7101 B2 R2223 C3 R4175 B2 R6226 A5 R7401 A3 ZD7403 D4

Scaler Board Layout(top left)

715T2474-1 AS2



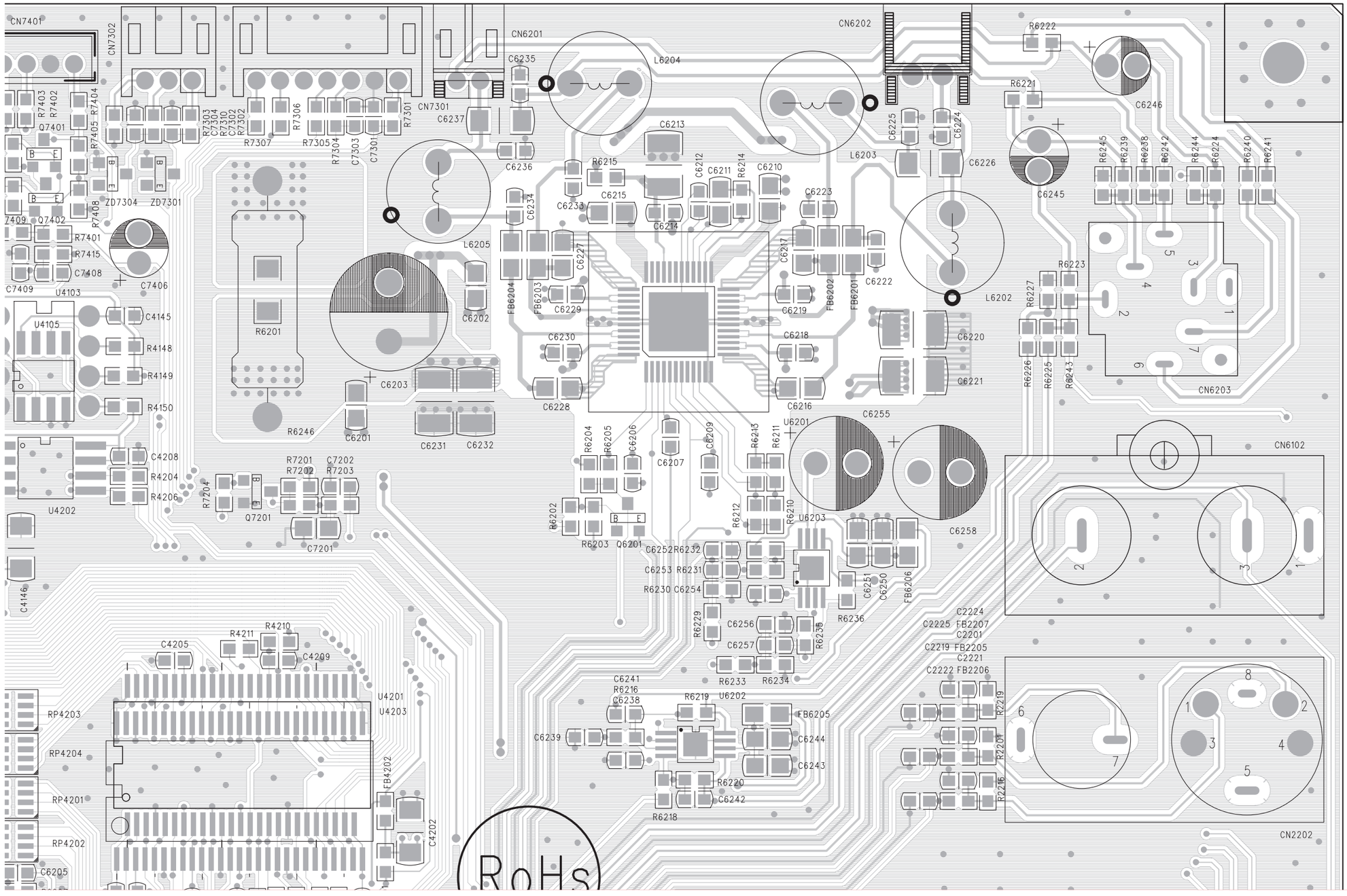
Scaler Board Layout(top right)

4 5

A

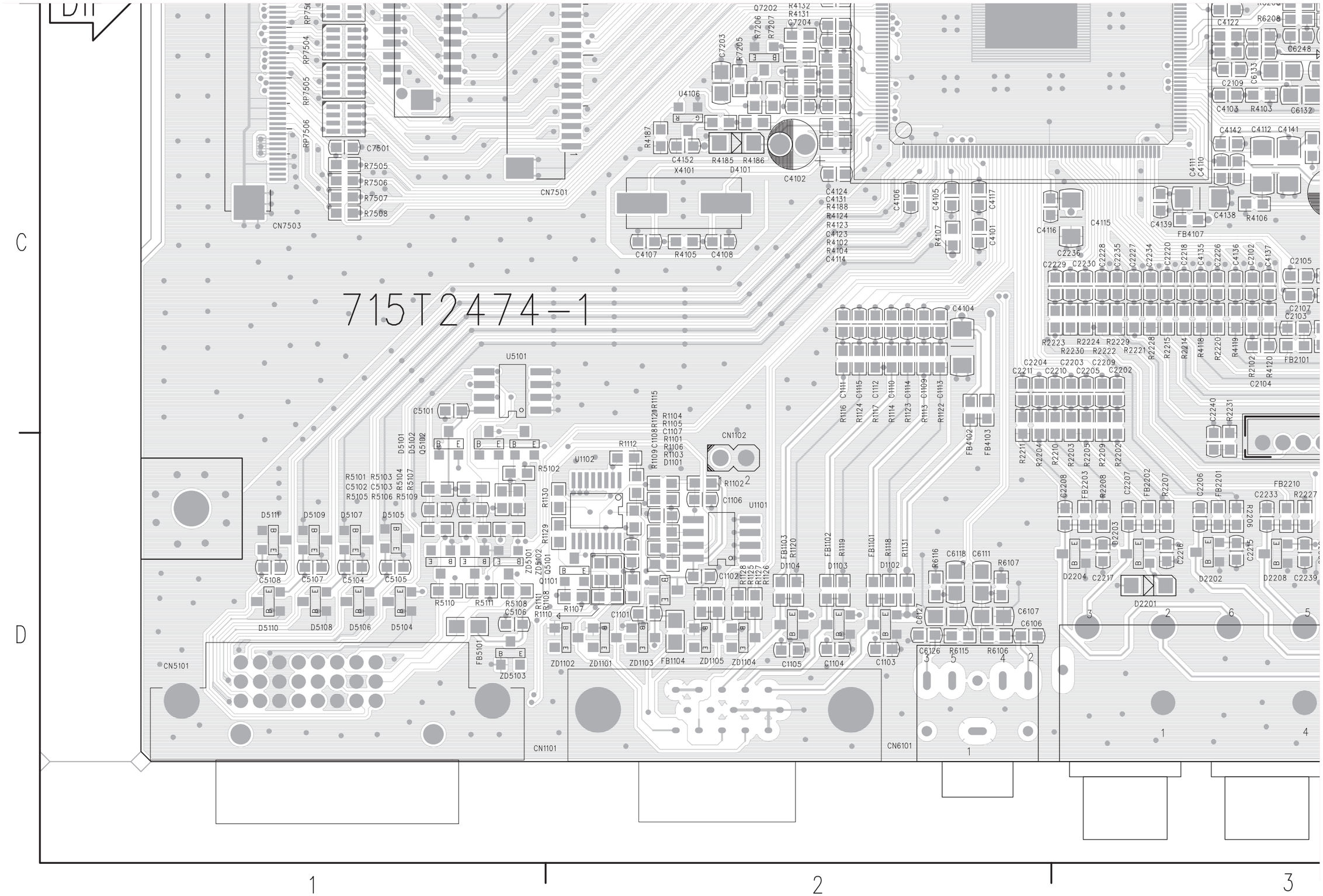
B

20PFL4122

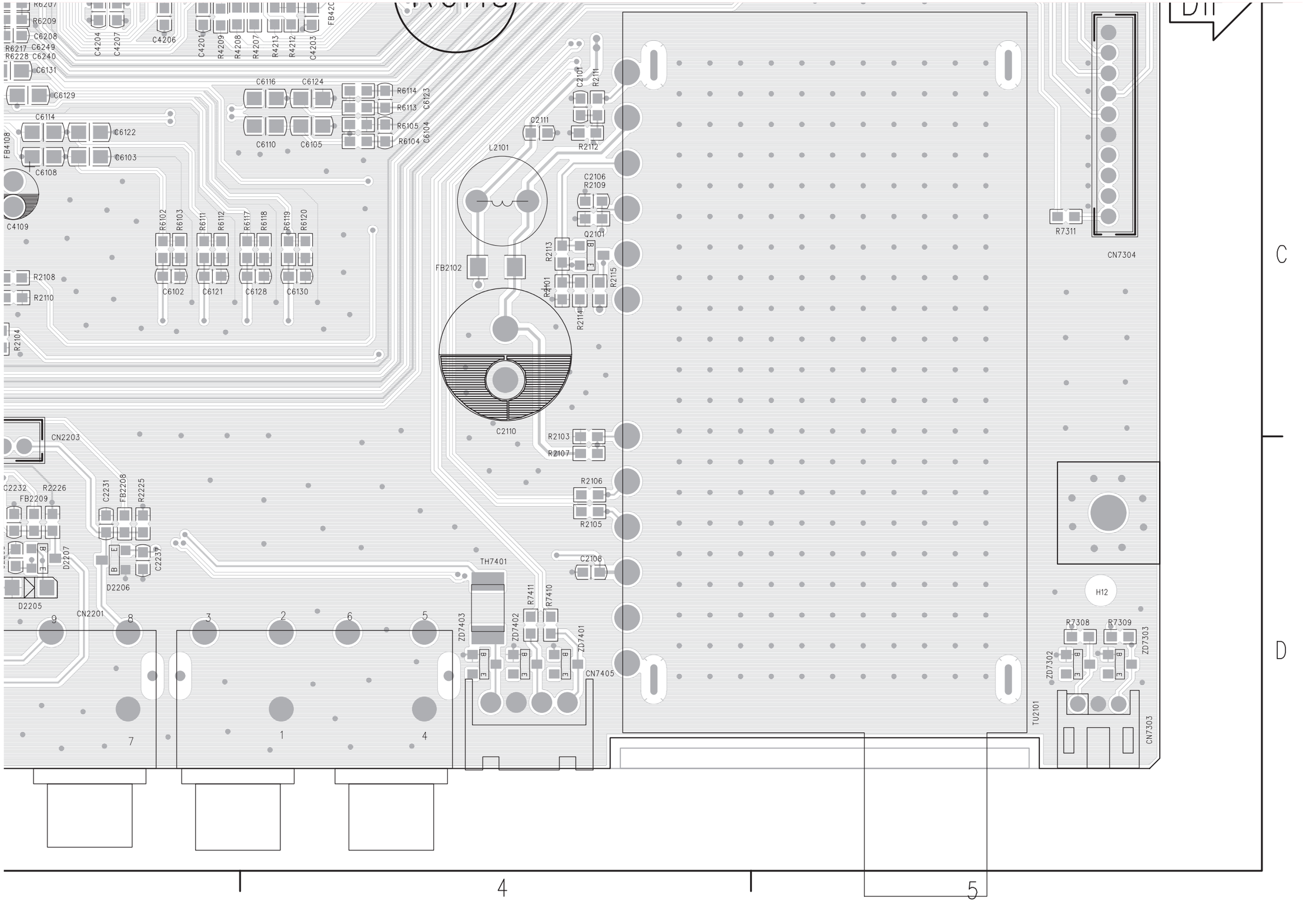


# 7. Circuit Diagrams and PWB Layouts

Scaler Board Layout(button left)

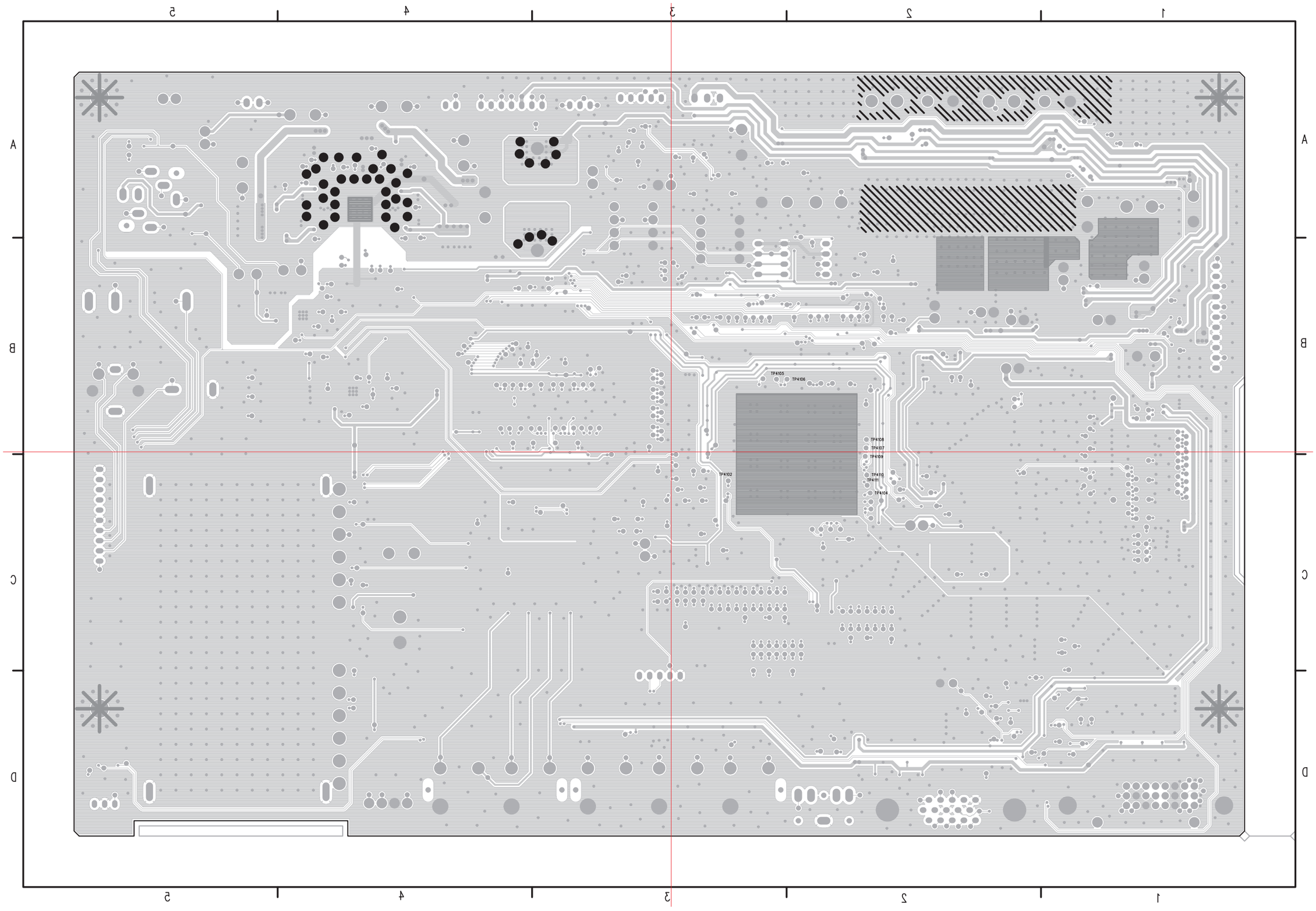


Scaler Board Layout(button right)

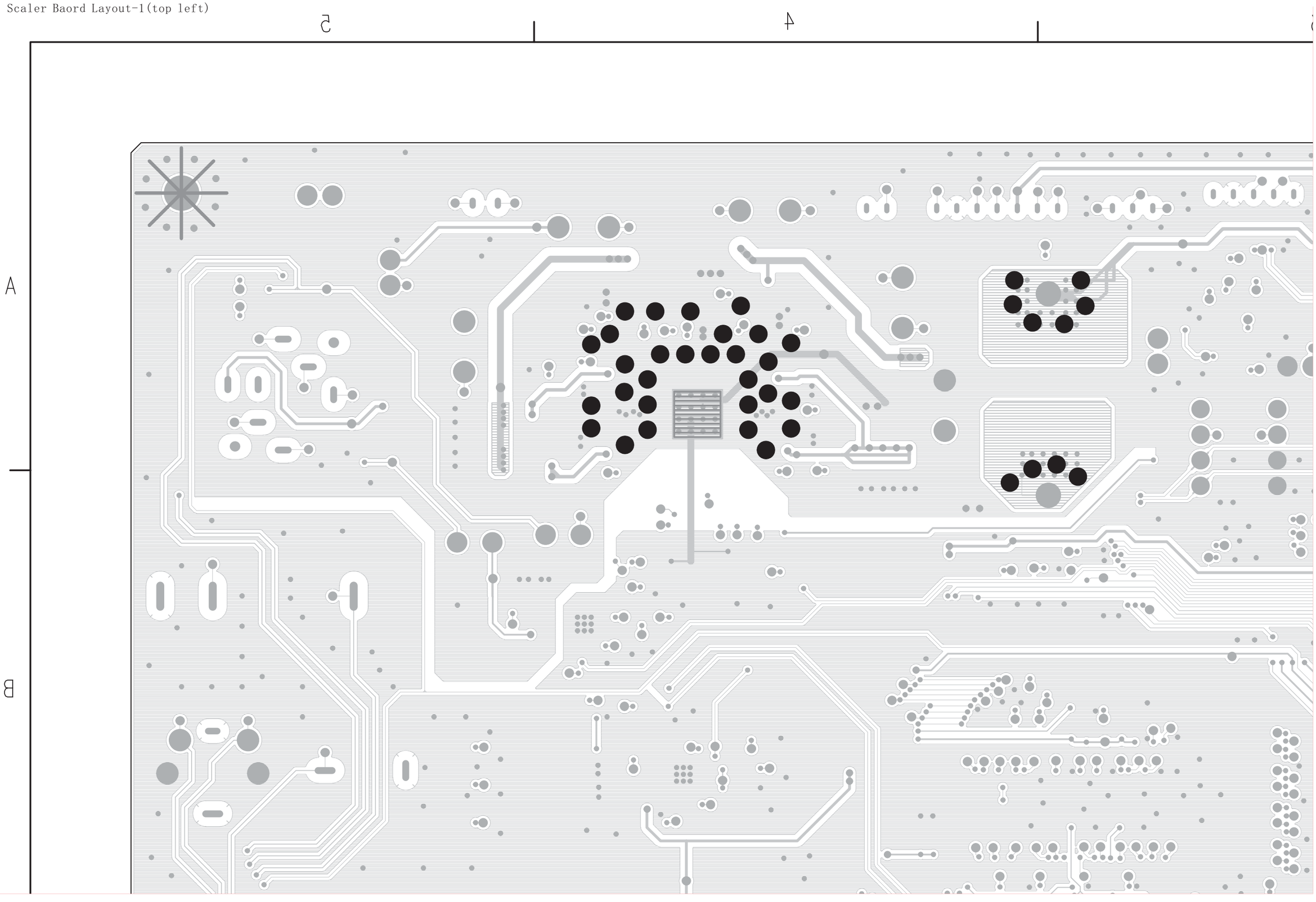


# 7. Circuit Diagrams and PWB Layouts

Scaler Board Layout-1

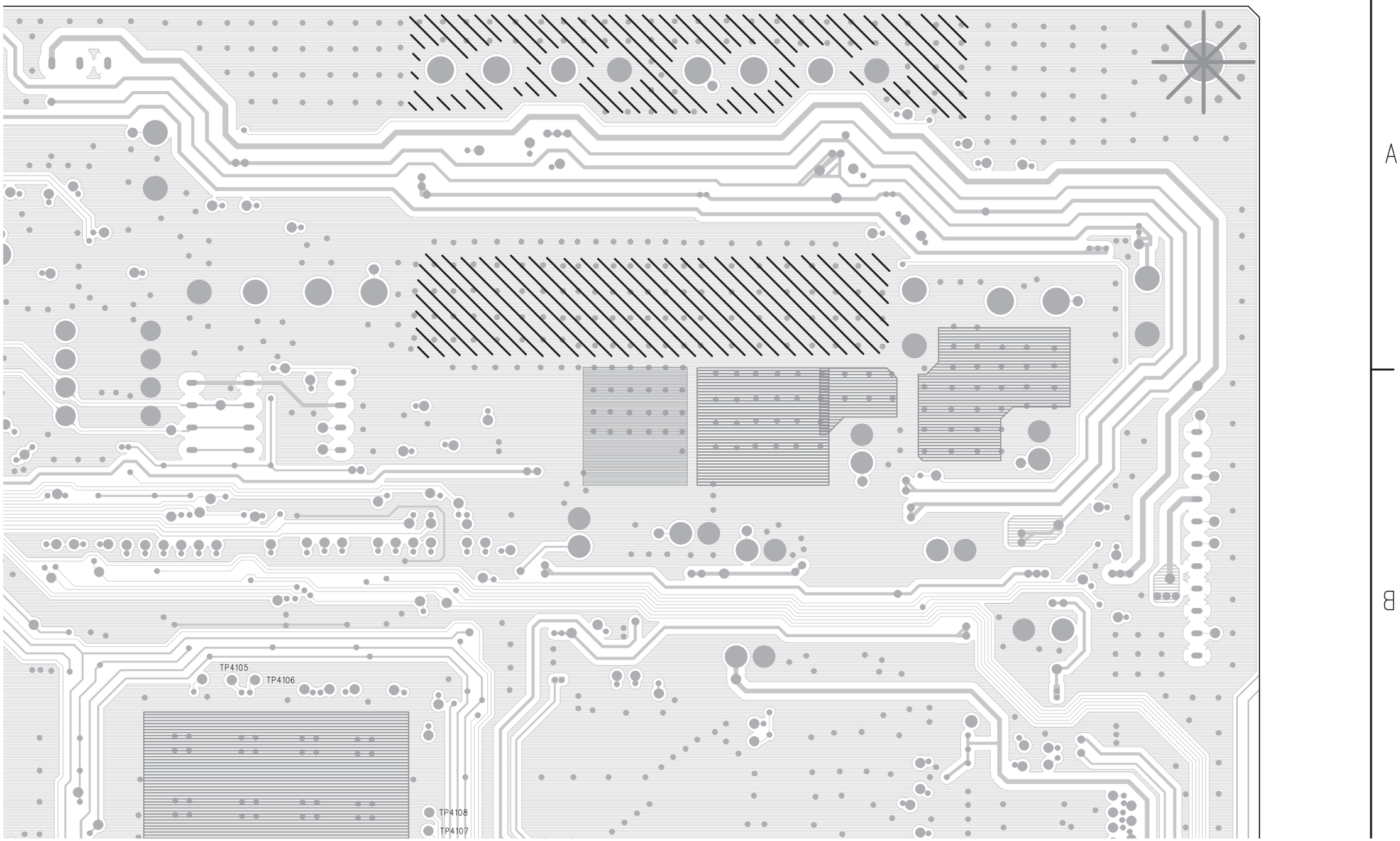


Scaler Baord Layout-1(top left)

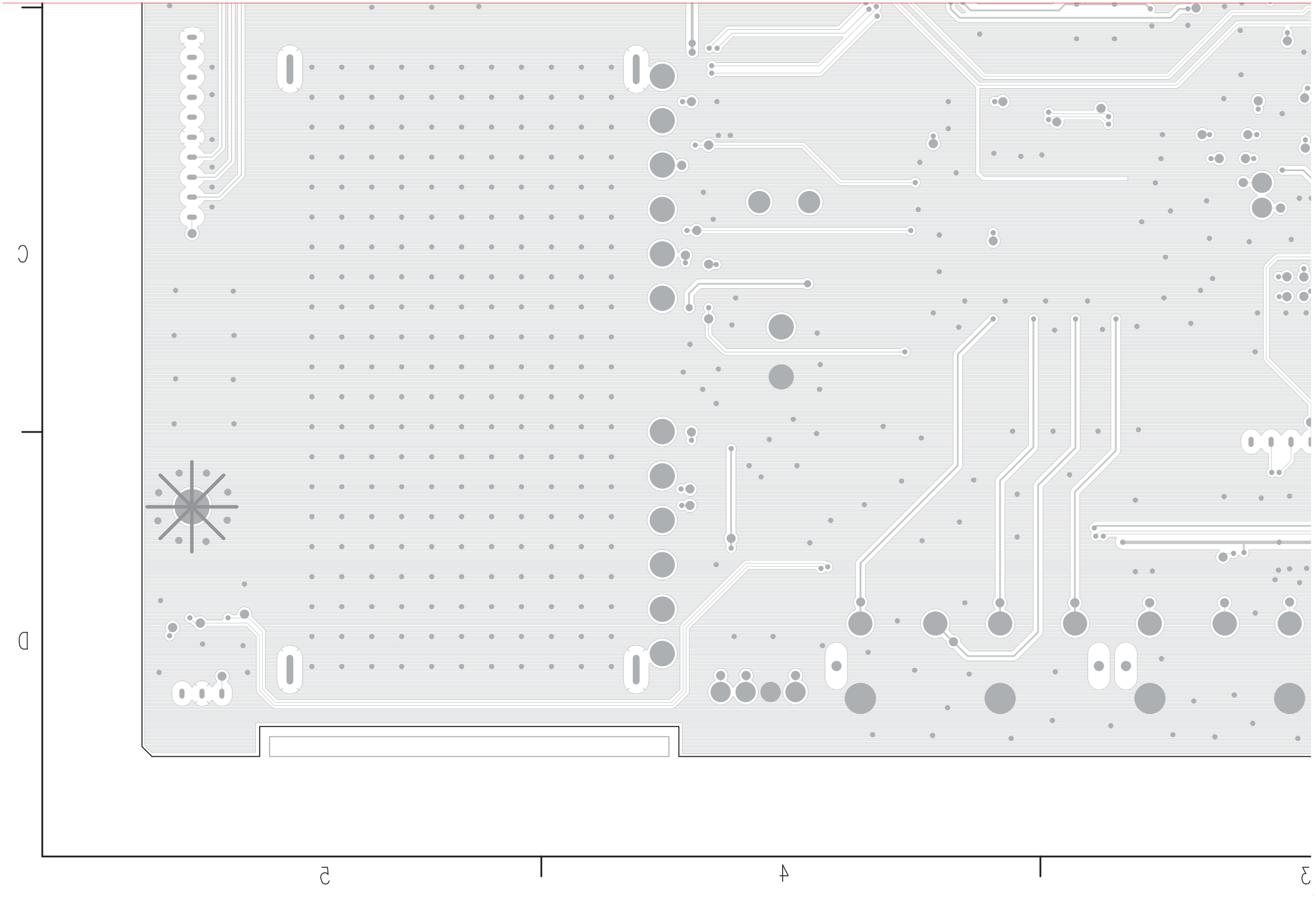


# 7. Circuit Diagrams and PWB Layouts

Scaler Board layout-1(top right)

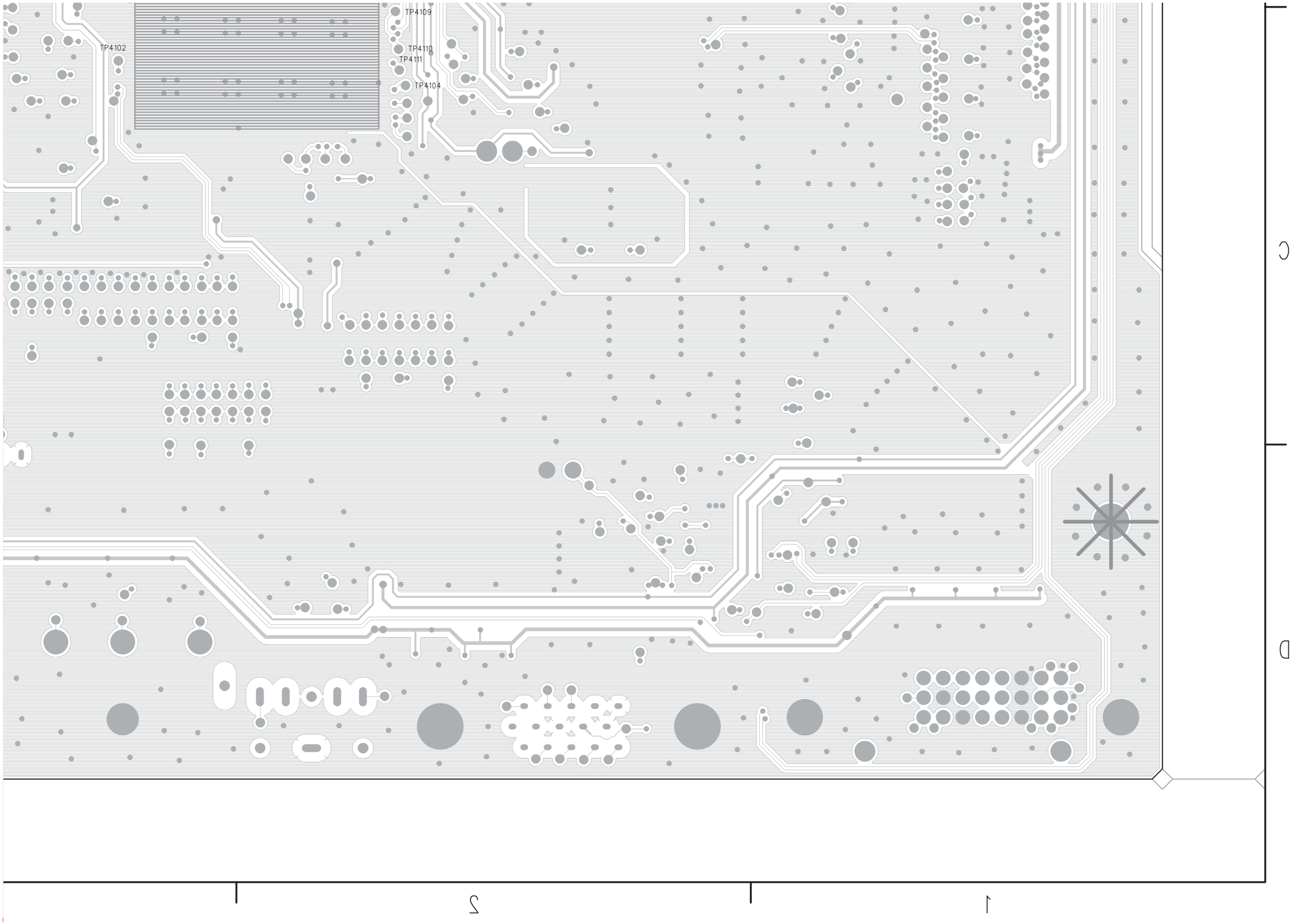


Scaler Board layout-1(button left)



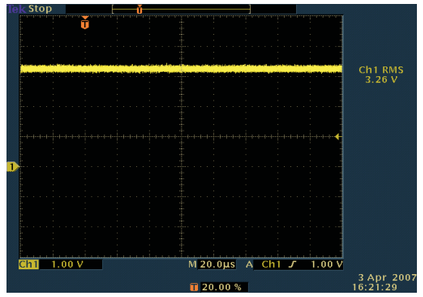
# 7. Circuit Diagrams and PWB Layouts

Scaler Board layout-1(button right)

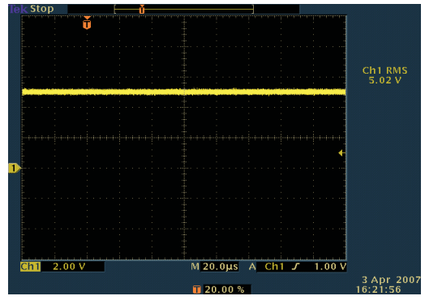


Test Point

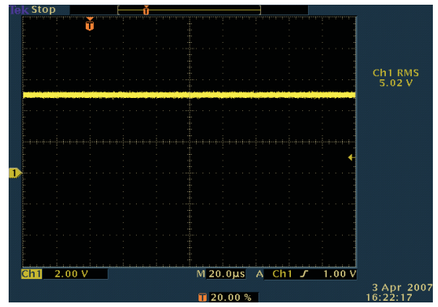
Pin 4 - U7101 (+3V3_STBY)



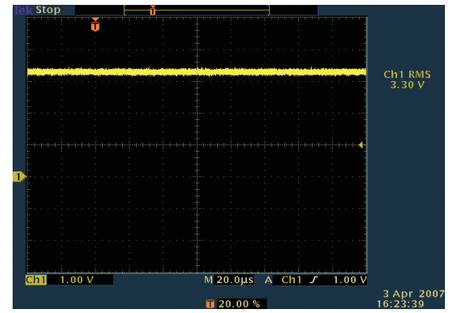

Pin 4 -U7106 (+5V_ITV)



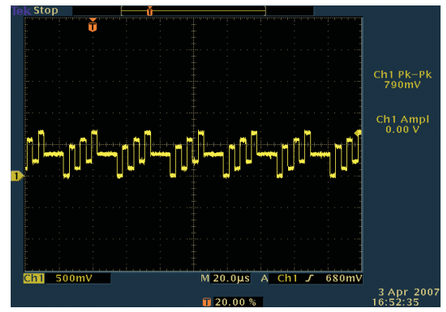

Pin 4 - U7105 (+5V_STBY)



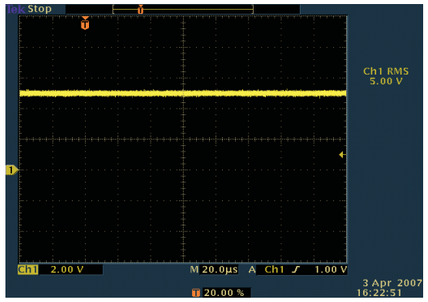

Pin 3 – U7104 (+3V3)



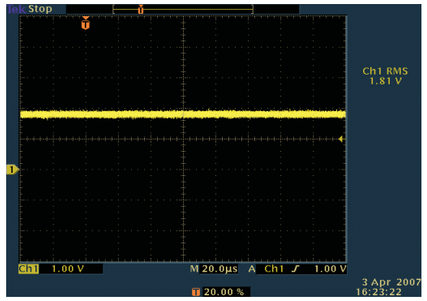

C2204 (PB1+)



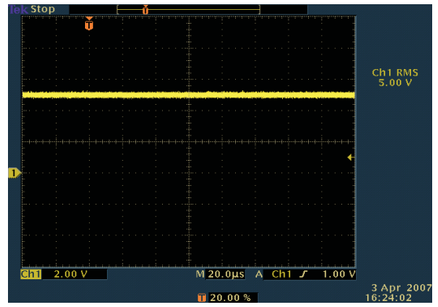

Pin 1 - D7102 (+5)



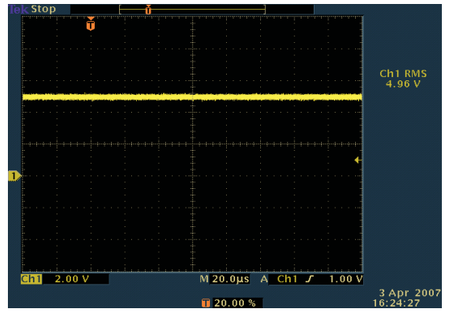

Pin 3 - U7103 (+1V8 )



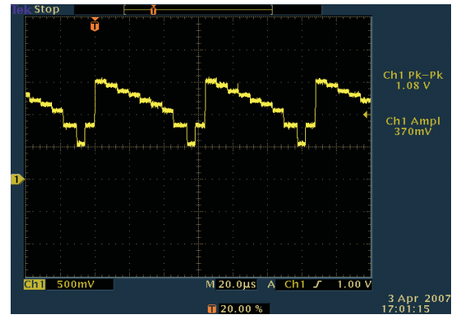

Pin 1 -FB7104 (+5V_PANEL)



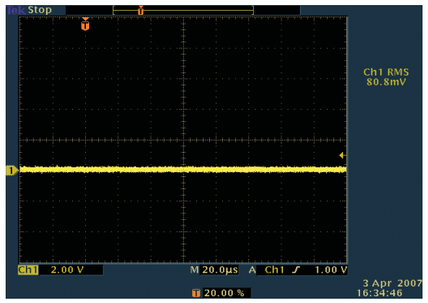

Pin 2 - FB7106 (PANEL_VCC)



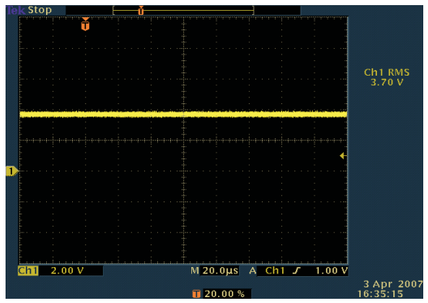

C2218 (SV_Y0)



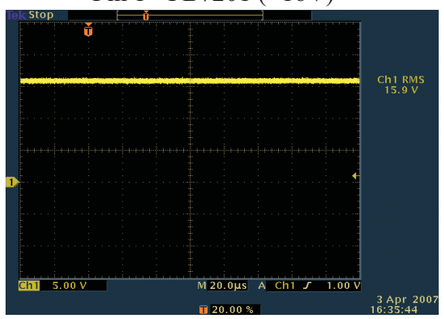

Pin 1 -FB7203 (BRIGHT_ADJ)



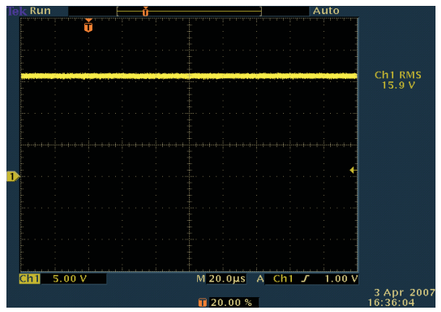

Pin 1 - FB7204 (INVERTER_ON_OFF)



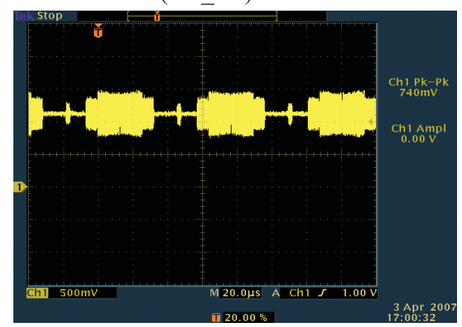

Pin 1 - FB7201 (+16V)



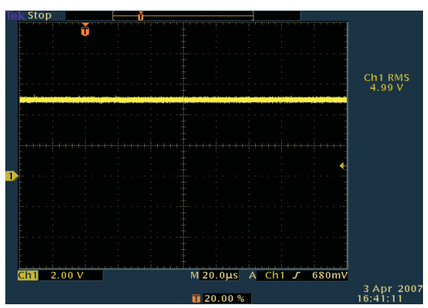

Pin 1 -FB7202 (+16V_AUDIO)



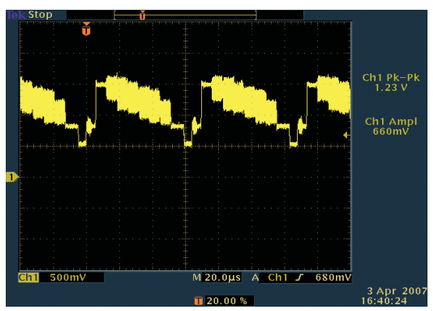

C2220 (SV_C0)



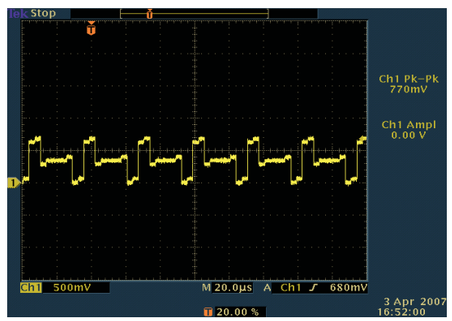

Pin 1 -FB2102 (+5V)



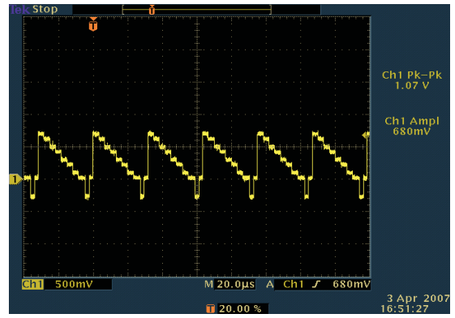

C2102 (TUNER_CVBS)



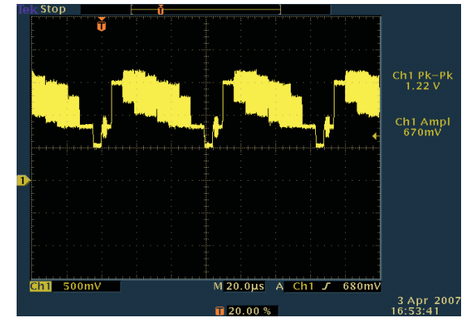

C2202 (PR1+)




C2203 (Y1+), C2205 (SOY1)

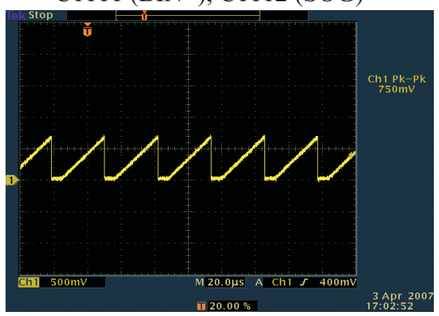



C2226 (AV_CVBS)

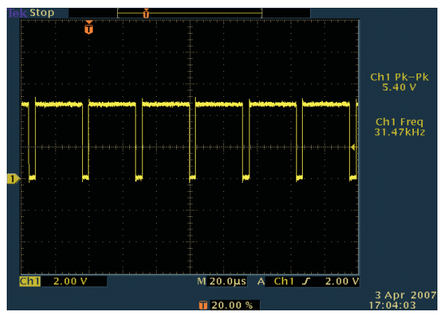


# 7. Circuit Diagrams and PWB Layouts

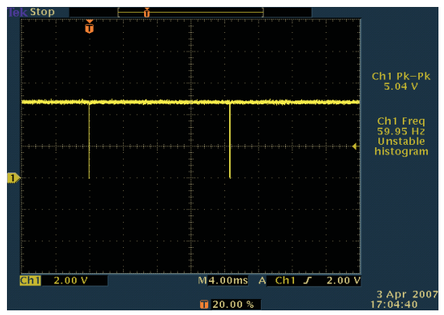
Test Point
C1109 (RIN+), C1110 (GIN+),
C1111 (BIN+), C1112 (SOG)



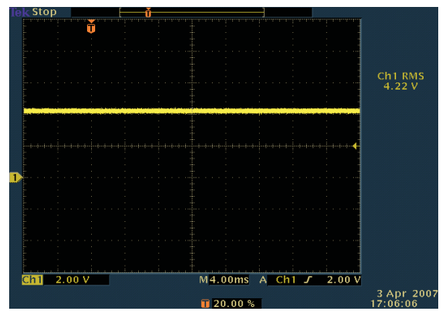

R1125 (HS_RGB)



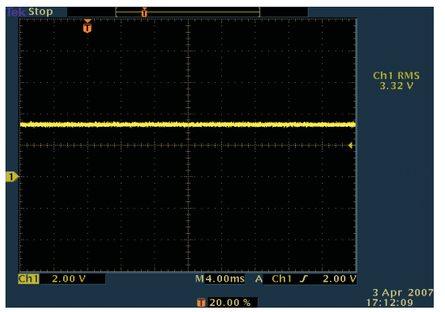

R1126 (VS_RGB)



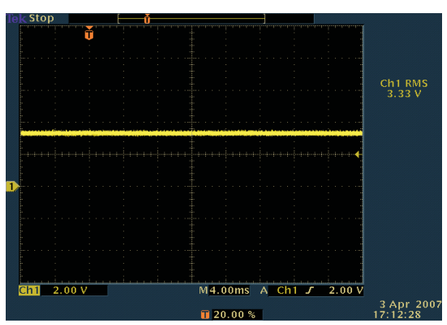

R1110 (TXD), R1115 (RXD)



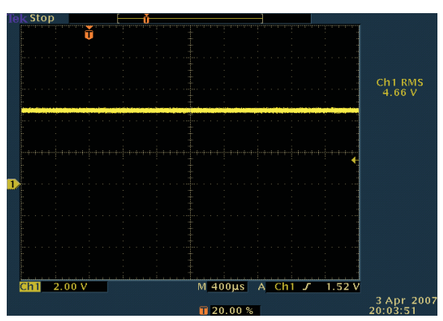

Pin 7 □U1101 (DDC_DSUB_WP)



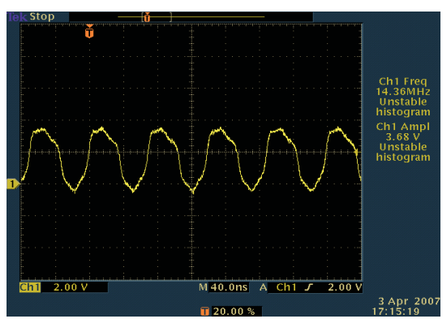

Pin 7 -U5101 (DDC_DVI_WP)



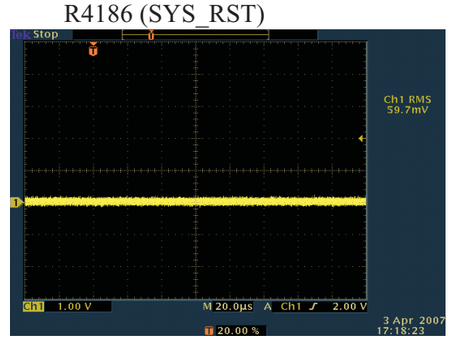

R5110 (SDA_HD), R5111 (SCL_HD)



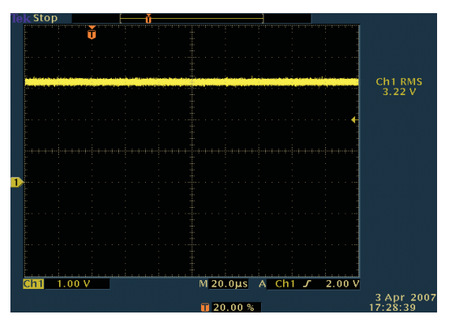

Pin 1 -X4101



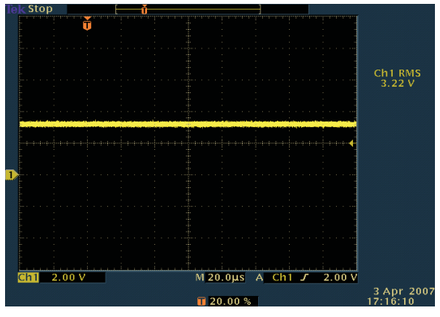

R4186 (SYS_RST)



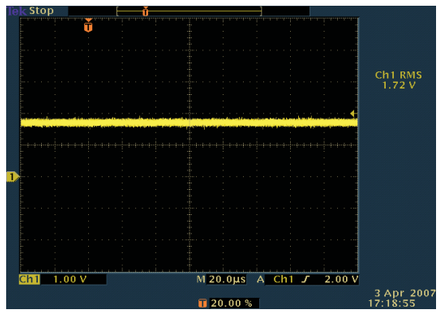

R4161 (KEY1), R4184 (KEY2)



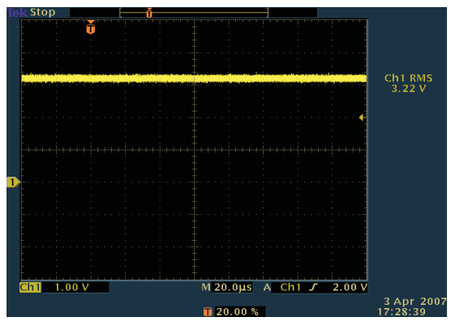

Pin 7 -U4104 (NVRAM_WP)



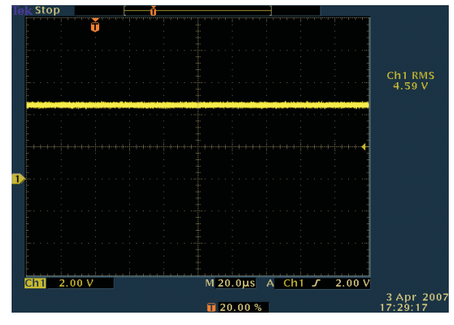

FB4106 (VDDC)



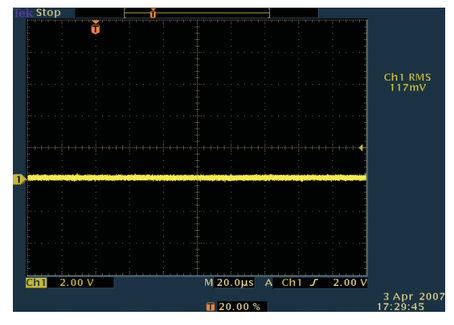

R7302 (KEY1), RR7310 (KEY2)



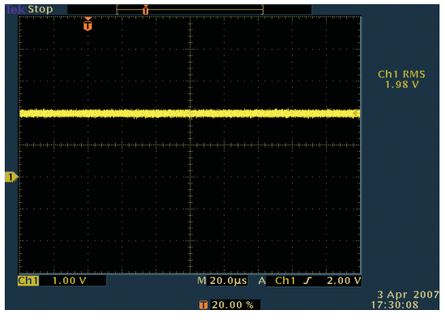

R7304 (RC_IR)



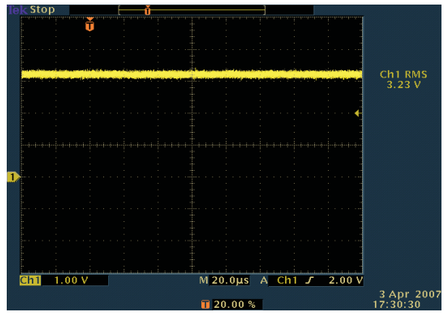

R7305 (LED_SEL_OUT)



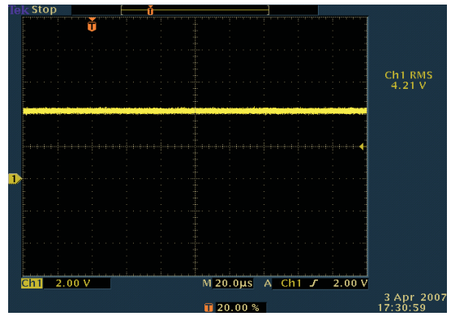

R7306 (PC_TV_LED)



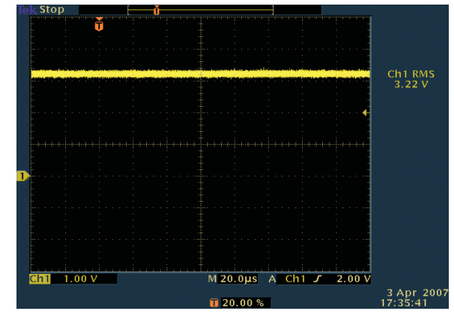

R7307 (PWR_ON_OFF)



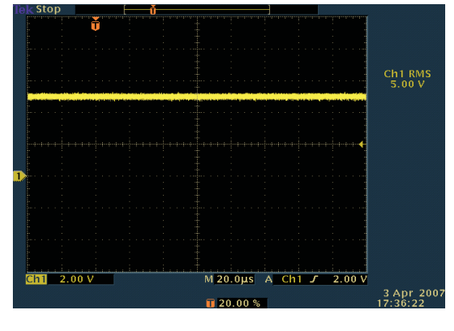

R7309 (TXD), R7308 (RXD)




R7411 (TDX1), R7410 (RDX1)

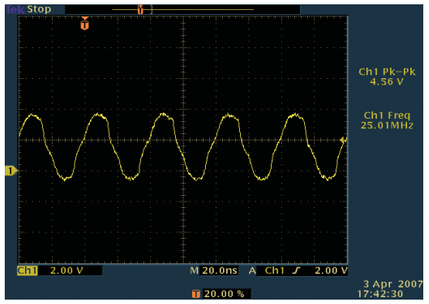



PIN 2 - TH7401 (External +5V for Level 1)

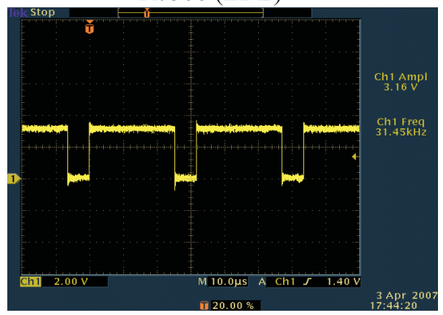


Test Point

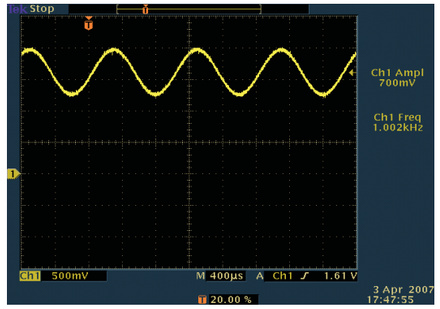
R7505 (LCK)



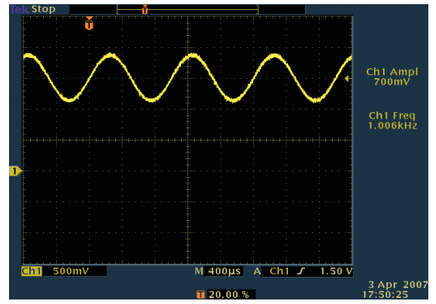

R7506 (LDE)



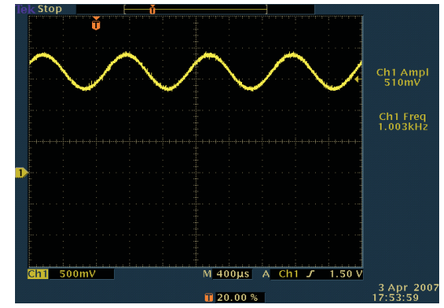

C6108 (AUL0), C6114 (AUR0)



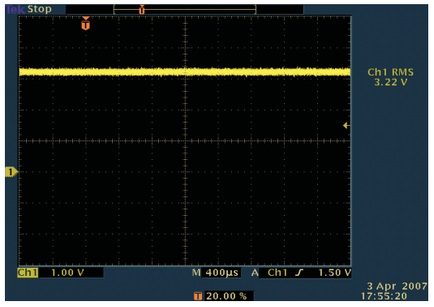

C6110 (AUL1), C6116 (AUR1)



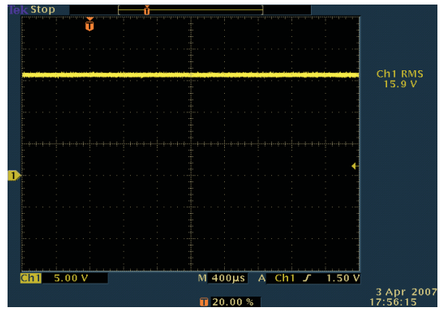

C6111 (AUL2), C6118 (AUR2)



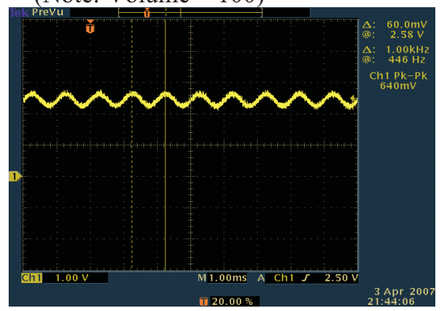

R6205 (AMP_STBY)




R6246 (AMP_VCC)




C6205 (AUOUTR), C6208 (AUOUTL)
(Note: Volume = 100)



# 7. Circuit Diagrams and PWB Layouts

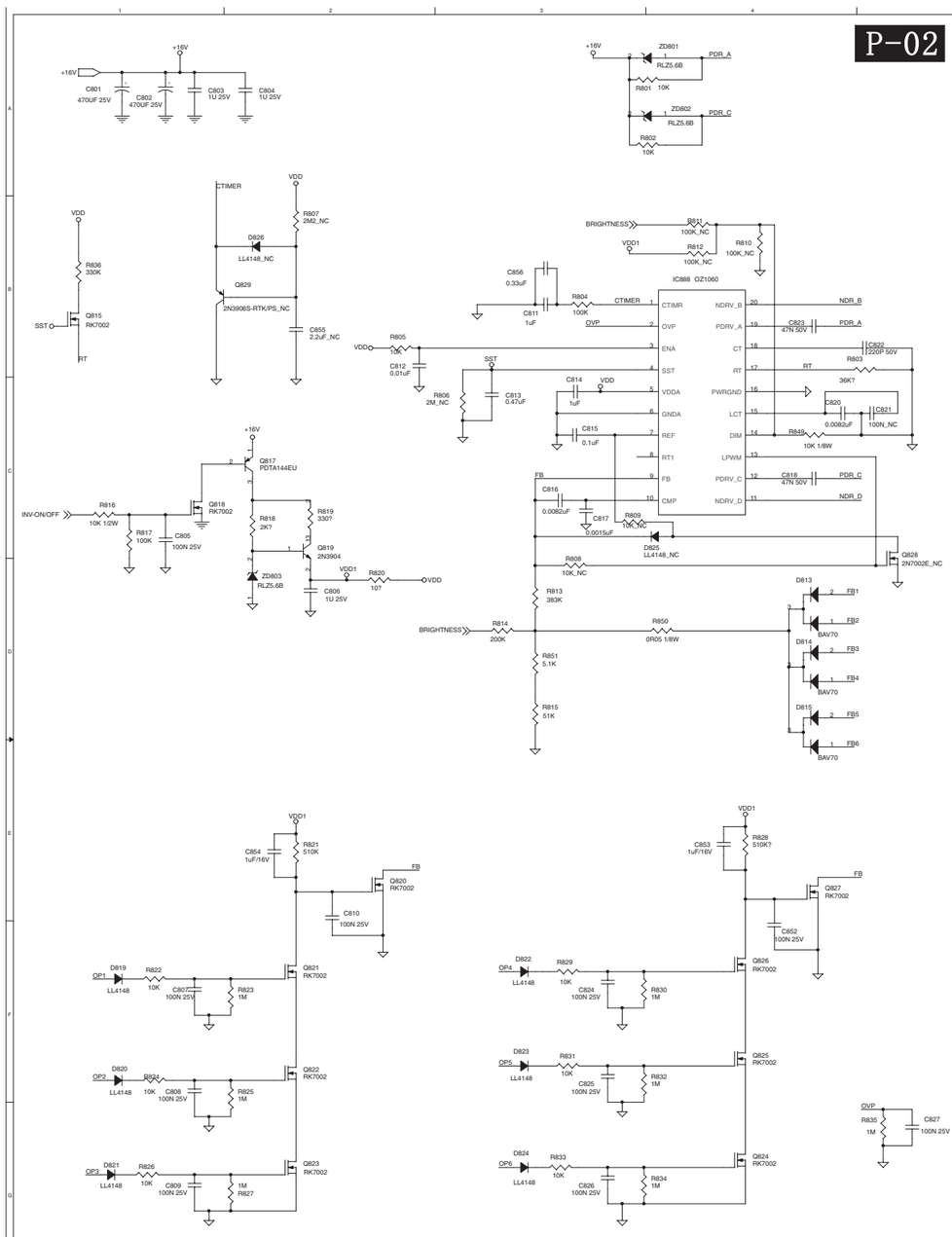
Power Board Schemtic Daigram

P-01

BD901 B1 CN1 C1
CN4 C2 CN5 D1
CN6 D2 CN901 F1
CN921 C9 CN922 D9
C900 D1 C901 D2
C907 B3 C908 E1
C910 D6 C911 D7
C914 D3 C915 E3
C916 D4 C917 C4
C919 D2 C920 C4
C931 B6 C932 B7
C933 B7 C934 B7
C935 E6 C936 C7
C937 B8 C938 C7
C939 D7 C940 E8
C941 F7 C942 E8
C943 C7 C944 C8
C945 C8 C946 F8
C947 E6 C948 D8
C950 D8 D906 C4
D907 C4 D908 E7
D910 D4 D911 E4
D912 C2 D921 B6
D922 C6 D928 D5
D929 D5 FB903 B6
F901 E2 HS1 B5
HS2 B6 IC901 D3
IC902 D5 IC921 E5
IC922 D7 L901 C2
L902 D2 L921 B7
L922 C7 L924 D8
NR901 E1 Q902 D5
Q903 E7 RV901 E2
R900 E1 R901 E2
R902 E2 R905 C4
R913 E7 R914 E3
R915 D4 R916 D4
R917 D4 R918 E3
R919 D4 R920 D5
R921 D4 R922 D7
R923 D5 R924 E8
R925 D4 R926 E4
R927 D7 R928 D3
R929 F7 R930 F6
R931 E6 R932 D2
R933 E6 R934 E8
R936 D6 R939 E8
R940 D6 R941 B3
R942 C3 R943 C5
R949 E8 T901 B5
ZD926 C3 ZD927 D8

Power Board Schemtic Diagram

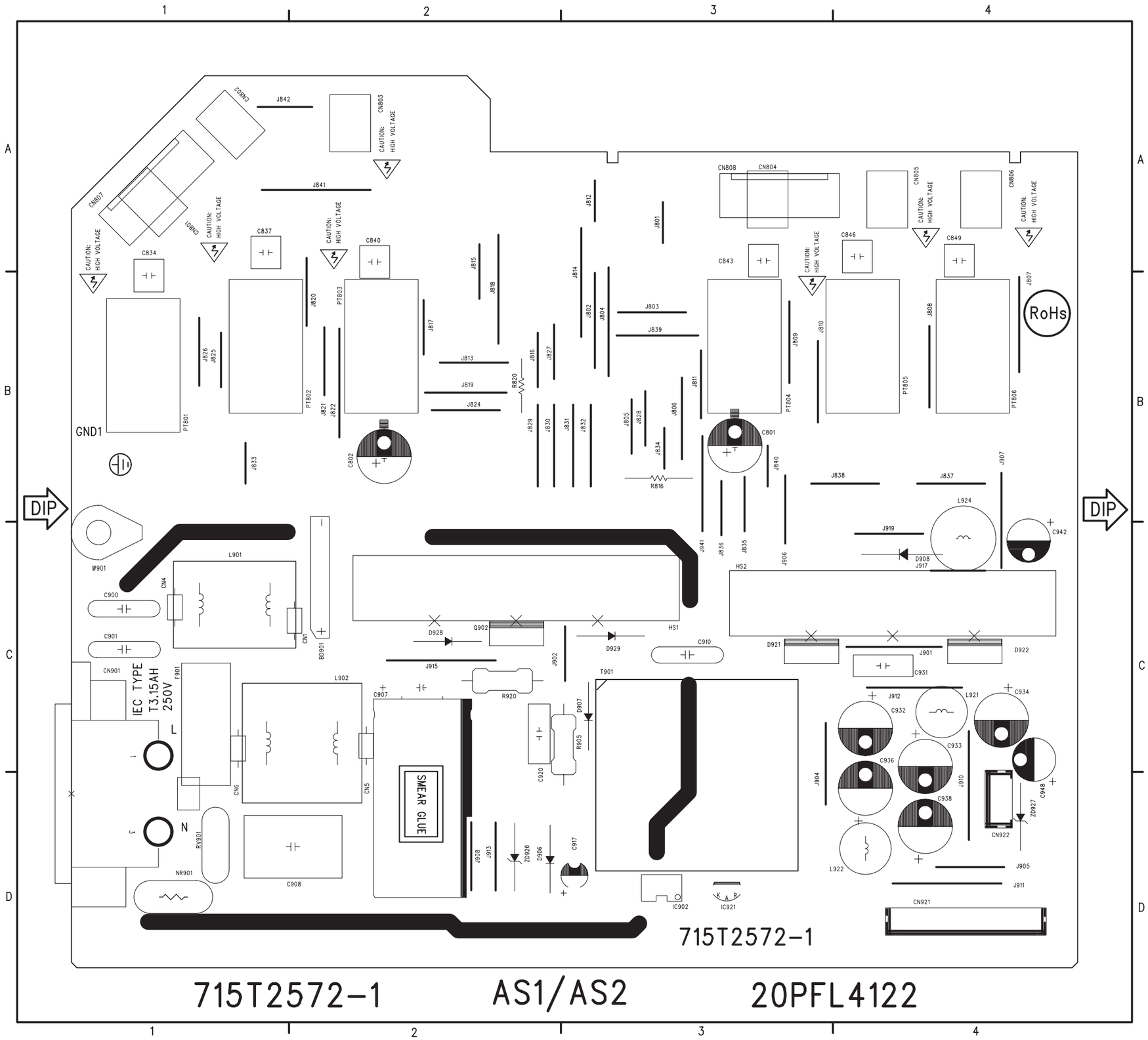
P-02




| | | | |
|---|---|---|---|
| CN801 | A9 | CN802 | B9 |
| CN803 | C9 | CN804 | D9 |
| CN805 | E9 | CN806 | F9 |
| C801 | A1 | C802 | A1 |
| C803 | A1 | C804 | A2 |
| C805 | C1 | C806 | D2 |
| C807 | F1 | C808 | F1 |
| C809 | G1 | C810 | E2 |
| C811 | B3 | C812 | B2 |
| C813 | C3 | C814 | C3 |
| C815 | C3 | C816 | C3 |
| C817 | C3 | C818 | C4 |
| C820 | C4 | C821 | C5 |
| C822 | B4 | C823 | B4 |
| C824 | F3 | C825 | F3 |
| C826 | G3 | C827 | G5 |
| C828 | A5 | C829 | B5 |
| C830 | D5 | C831 | E5 |
| C834 | A7 | C835 | A7 |
| C836 | A7 | C837 | B7 |
| C838 | B7 | C839 | B7 |
| C840 | C7 | C841 | C7 |
| C842 | C7 | C843 | D7 |
| C844 | D7 | C845 | D7 |
| C846 | E7 | C847 | E7 |
| C848 | E7 | C849 | F7 |
| C850 | F7 | C851 | F7 |
| C852 | E4 | C853 | E4 |
| C854 | E2 | C855 | B2 |
| C856 | B3 | C858 | A6 |
| C859 | A6 | C860 | A6 |
| C861 | D6 | C862 | D6 |
| C863 | D6 | D801 | A8 |
| D802 | A8 | D803 | B8 |
| D804 | B8 | D805 | C8 |
| D806 | C8 | D807 | D8 |
| D808 | D8 | D809 | E8 |
| D810 | E8 | D811 | F8 |
| D812 | F8 | D813 | D4 |
| D814 | D4 | D815 | D4 |
| D819 | F1 | D820 | F1 |
| D821 | G1 | D822 | F3 |
| D823 | F3 | D824 | G3 |
| D825 | C3 | D826 | B2 |
| IC888 | B4 | PT801 | A7 |
| PT802 | B7 | PT803 | C7 |
| PT804 | D7 | PT805 | E7 |
| PT806 | F7 | Q811 | A6 |
| Q812 | B6 | Q813 | D6 |
| Q814 | E6 | Q815 | B1 |
| Q817 | C2 | Q818 | C1 |
| Q819 | C2 | Q820 | E2 |
| Q821 | F2 | Q822 | F2 |
| Q823 | G2 | Q824 | G4 |
| Q825 | F4 | Q826 | F4 |
| Q827 | E4 | Q828 | C5 |
| Q829 | B1 | R800 | G5 |
| R801 | A3 | R802 | A3 |
| R803 | B4 | R804 | B3 |
| R805 | B2 | R806 | C3 |
| R807 | B2 | R808 | C3 |
| R809 | C3 | R810 | B4 |
| R811 | B4 | R812 | B4 |
| R813 | D3 | R814 | D3 |
| R815 | D3 | R816 | C1 |
| R817 | C1 | R818 | C2 |
| R819 | C2 | R820 | D2 |
| R821 | E2 | R822 | F1 |
| R823 | F1 | R824 | F1 |
| R825 | F1 | R826 | G1 |
| R827 | G1 | R828 | E4 |
| R829 | F3 | R830 | F3 |
| R831 | F3 | R832 | F3 |
| R833 | G3 | R834 | G3 |
| R835 | G5 | R836 | B1 |
| R837 | A8 | R838 | A8 |
| R839 | B8 | R840 | B8 |
| R841 | C8 | R842 | C8 |
| R843 | D8 | R844 | D8 |
| R845 | E8 | R846 | E8 |
| R847 | F8 | R848 | F8 |
| R849 | C4 | R850 | D4 |
| R851 | D3 | ZD801 | A3 |
| ZD802 | A3 | ZD803 | D2 |

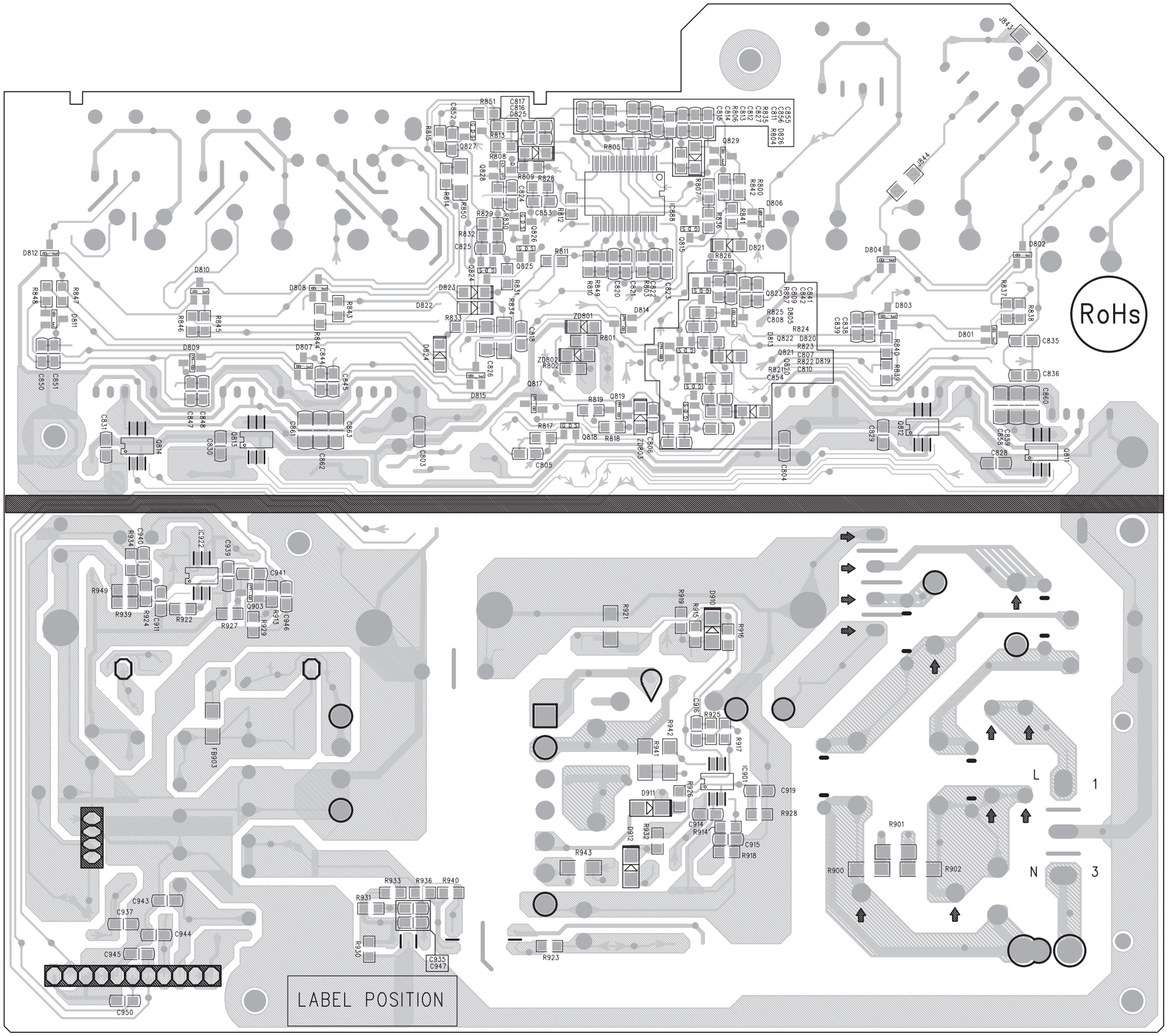
# 7. Circuit Diagrams and PWB Layouts

Power Board Layout




BD901 C2 J825 B1
C801 B3 J826 B1
C802 B2 J827 B2
C834 B1 J828 B3
C837 A1 J829 B2
C840 A2 J830 B2
C843 A3 J831 B2
C846 A4 J832 B3
C849 A4 J833 B1
C900 C1 J834 B3
C901 C1 J835 B3
C907 C2 J836 B3
C908 D1 J837 B4
C910 C3 J838 B3
C917 D3 J839 B3
C920 C2 J840 B3
C931 C4 J841 A1
C932 C4 J842 A2
C933 C4 J901 C3
C934 C4 J902 C2
C936 D4 J904 D3
C938 D4 J905 D4
C942 C4 J906 B3
C948 C4 J907 B4
CN801 A1 J908 D2
CN802 A1 J910 D4
CN803 A2 J911 D4
CN804 A3 J912 C4
CN805 A4 J913 D2
CN806 A4 J915 C2
CN807 A1 J917 C4
CN808 A3 J919 C4
CN901 D1 J941 C3
CN921 D4 L901 C1
CN922 D4 L902 C2
D906 D2 L921 C4
D907 C3 L922 D4
D908 C4 L924 C4
D921 C3 NR901 D1
D922 C4 PT801 B1
D928 C2 PT802 B1
D929 C3 PT803 B2
F901 C1 PT804 B3
GND1 B1 PT805 B4
IC902 D3 PT806 B4
IC921 D3 Q902 C2
J801 A3 R816 B3
J802 B3 R820 B2
J803 B3 R905 C2
J804 B3 R920 C2
J805 B3 RV901 D1
J806 B3 SL10 D3
J807 B4 SL11 C3
J808 B4 SL12 A3
J809 B3 SL13 A4
J810 B3 SL14 A1
J811 B3 SL15 A4
J812 A3 SL16 A1
J813 B2 SL17 A2
J814 B3 SL18 A2
J815 B2 SL20 A4
J816 B2 SL21 A4
J817 B2 SL22 A3
J818 B2 SL23 D3
J819 B2 T901 D3
J820 B2 W901 C1
J821 B2 ZD926 D2
J822 B2 ZD927 D4
J824 B2

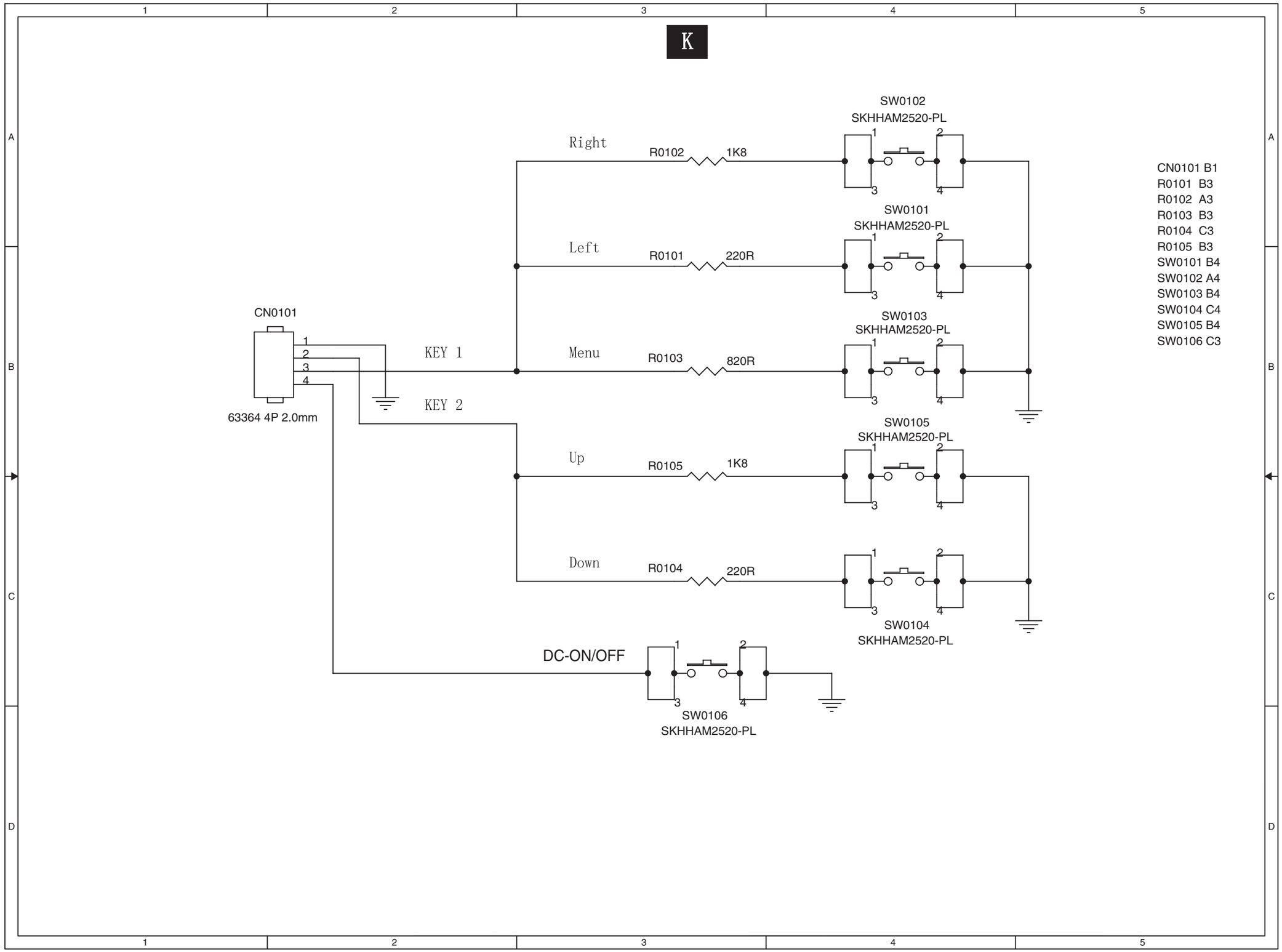
Power Board Layout-1




C803 B3 D802 B1 R819 B2
C804 B2 D803 B2 R821 B2
C805 B3 D804 B2 R822 B2
C806 B2 D805 B2 R823 B2
C807 B2 D806 A2 R824 B2
C808 B2 D807 B3 R825 B2
C809 B2 D808 B3 R826 B2
C810 B2 D809 B4 R827 B2
C811 A2 D810 B4 R828 A3
C812 A2 D811 B4 R829 A3
C813 A2 D812 B4 R830 A3
C814 A2 D813 B2 R831 B3
C815 A3 D814 B2 R832 B3
C816 A3 D815 B3 R833 B3
C817 A3 D819 B2 R834 B3
C818 B3 D820 B2 R835 A2
C820 B2 D821 B2 R836 A2
C821 B2 D822 B3 R837 B1
C822 B2 D823 B3 R838 B1
C823 B2 D824 B3 R839 B2
C824 A3 D825 A3 R840 B2
C825 B3 D826 A2 R841 A2
C826 B3 D910 C2 R842 A2
C827 A2 D911 D2 R843 B3
C828 B1 D912 D2 R844 B3
C829 B2 FB903 C4 R845 B4
C830 B4 IC888 A2 R846 B4
C831 B4 IC901 C2 R847 B4
C835 B1 IC922 C4 R848 B4
C836 B1 J843 A1 R849 B2
C838 B2 J844 A2 R850 A3
C839 B2 Q811 B1 R851 A3
C841 B2 Q812 B1 R900 D2
C842 B2 Q813 B4 R901 D2
C844 B3 Q814 B4 R902 D1
C845 B3 Q815 A2 R913 C3
C847 B4 Q817 B3 R914 D2
C848 B4 Q818 B3 R915 C2
C850 B4 Q819 B2 R916 C2
C851 B4 Q820 B2 R917 C2
C852 A3 Q821 B2 R918 D2
C853 A3 Q822 B2 R919 C2
C854 B2 Q823 B2 R921 C2
C855 A2 Q824 B3 R922 C4
C856 A2 Q825 B3 R923 D3
C858 B1 Q826 A3 R924 C4
C859 B1 Q827 A3 R925 C2
C860 B1 Q828 A3 R926 C2
C861 B3 Q829 A2 R927 C4
C862 B3 Q903 C4 R928 D2
C863 B3 R800 A2 R929 C4
C911 C4 R801 B3 R930 D3
C914 D2 R802 B3 R931 D3
C915 D2 R803 B2 R932 D2
C916 C2 R804 A2 R933 D3
C919 C2 R805 A2 R934 C4
C935 D3 R806 A2 R936 D3
C937 D4 R807 A2 R939 C4
C939 C4 R808 A3 R940 D3
C940 C4 R809 A3 R941 C2
C941 C4 R810 B2 R942 C2
C943 D4 R811 B3 R943 D3
C944 D4 R812 A3 R949 C4
C945 D4 R813 A3 ZD801 B3
C946 C3 R814 A3 ZD802 B3
C947 D3 R815 A3 ZD803 B2
C950 D4 R817 B3
D801 B1 R818 B2

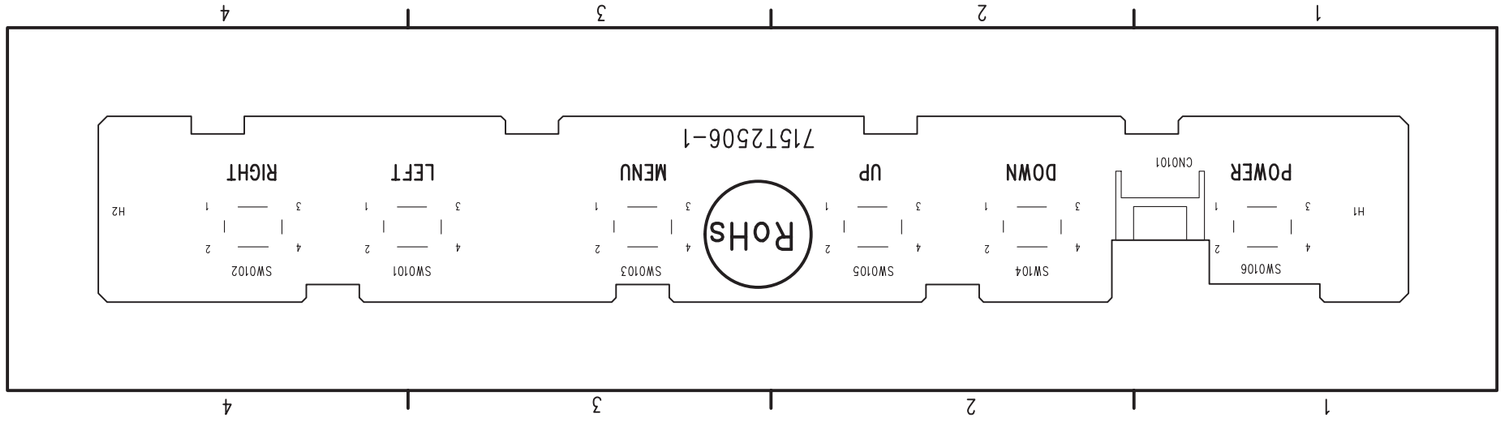
# 7. Circuit Diagrams and PWB Layouts

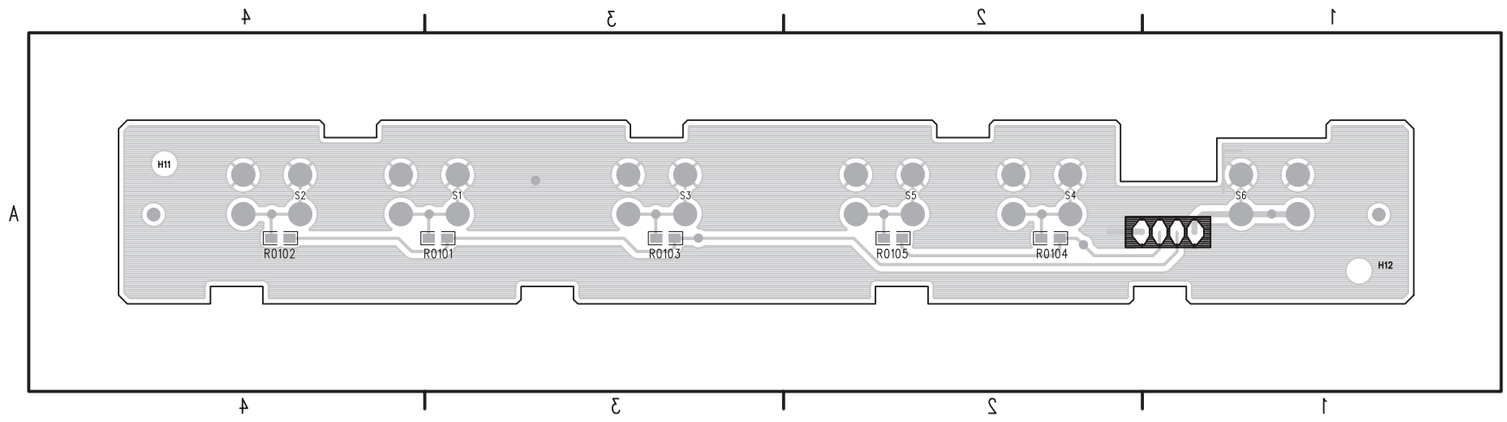
Key Board Schemtic Daigram



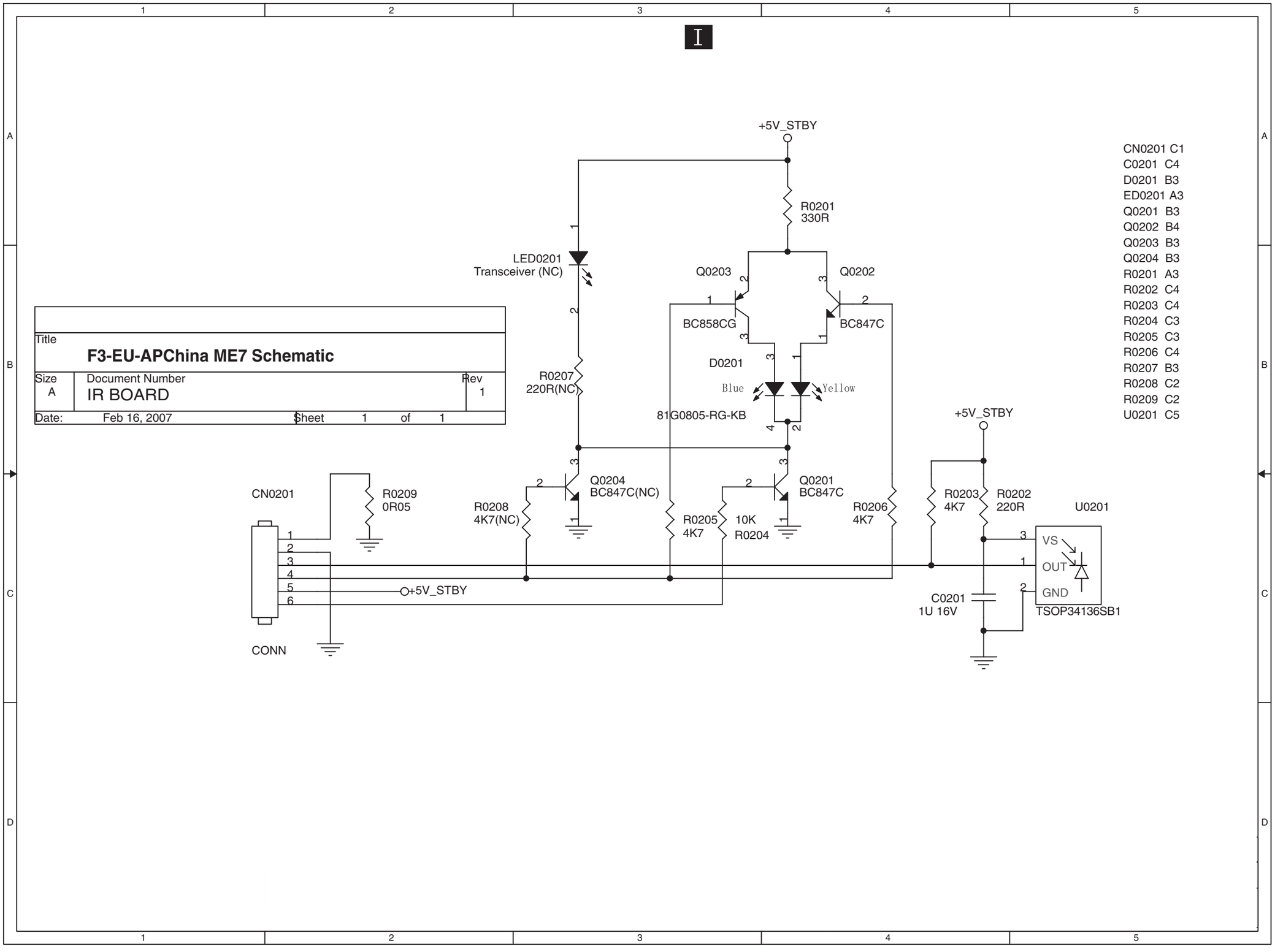
# 7.Circuit Diagrams and PWB Layouts

## Key Board Layout

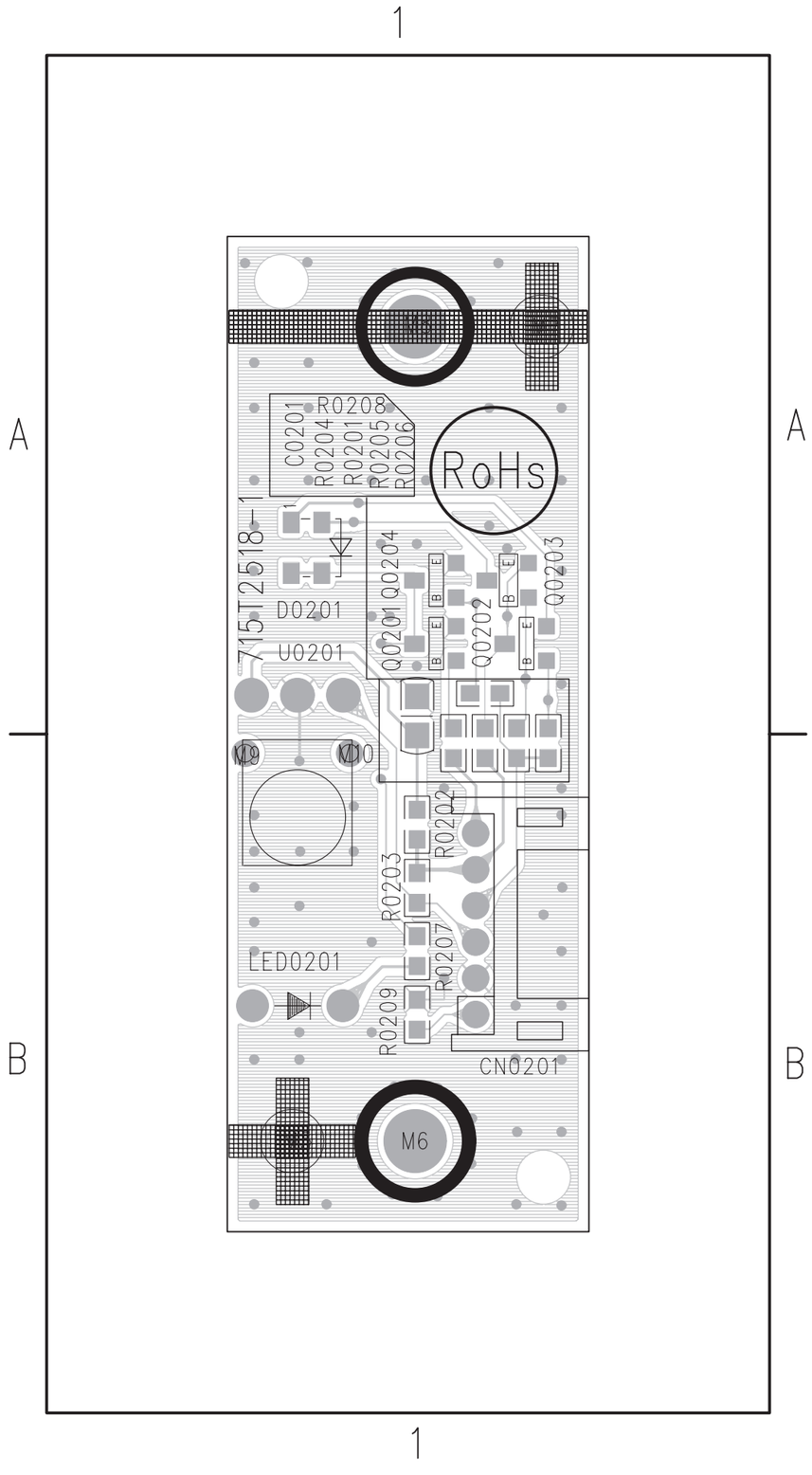


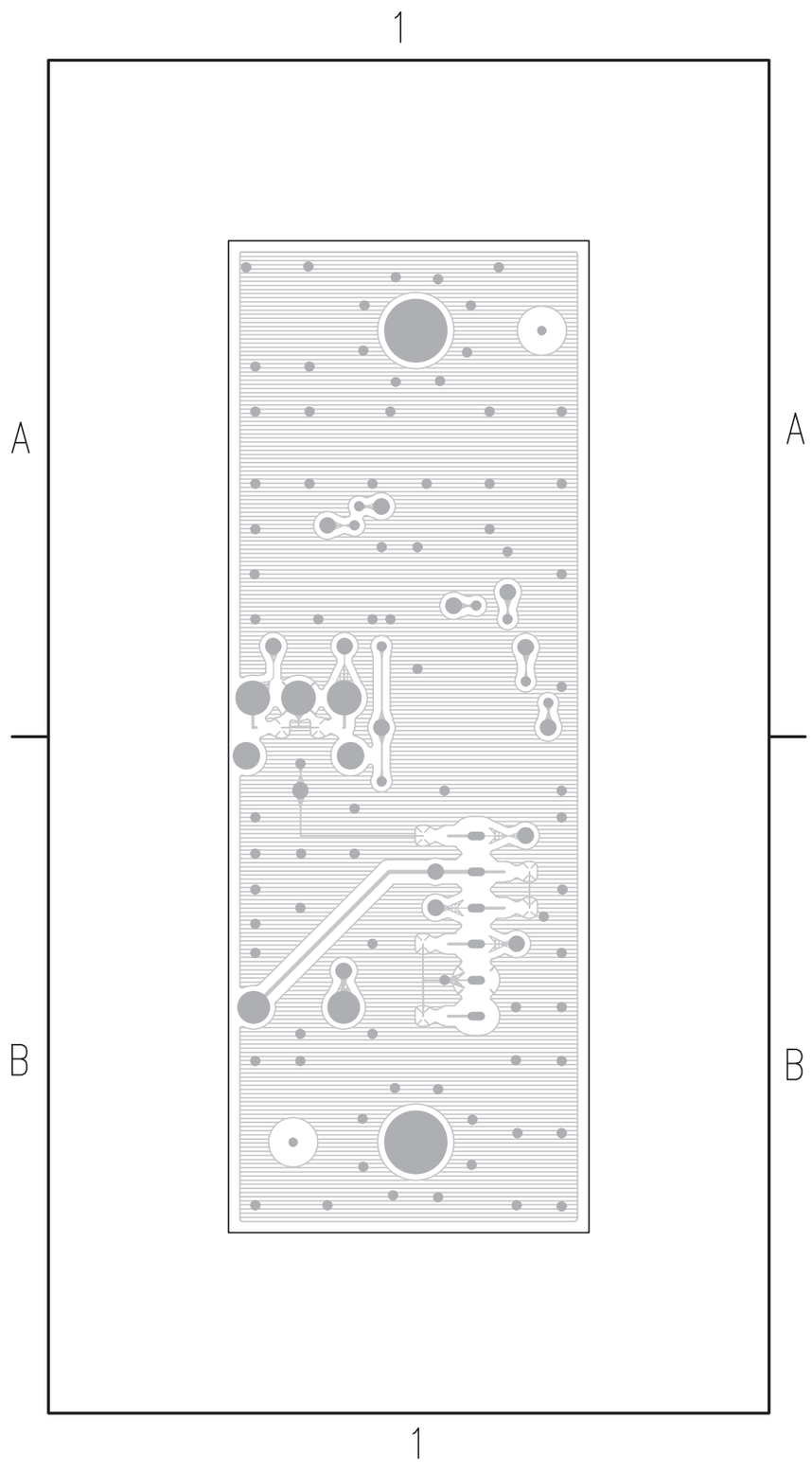
IR Board Schemtic Diagram



IR Board Layout




C0201 A1
CN0201 B1
D0201 A1
ED0201 B1
Q0201 A1
Q0202 A1
Q0203 A1
Q0204 A1
R0201 B1
R0202 B1
R0203 B1
R0204 B1
R0205 B1
R0206 B1
R0207 B1
R0208 A1
R0209 B1
U0201 B1



# 8. Alignments

Index of this chapter:

8.1 Electrical Instructions
8.2 ISP Instructions
8.3 Serial Number Definition

Notes: You could adjust the LCD/TV following this chapter when the LCD/TV has the below defect.
1. Change panel. 2. Change or repair main board.
3. LCD/TV color is not right. 4. The settings are disabled.

## 8.1 Electrical Instructions

### 8.1.1 TV Mode display adjust

#### 8.1.1.1 White balance adjustment (B)

General set-up:

Equipment Requirements: Color analyzer.

Input requirements:

Input Signal Type : RF signal

Set to PAL D/K system, frequency=184.25MHz ( for China model ) with white pattern of 100%

Set to PAL B/G system, frequency=64.25MHz ( for AP model ) with white pattern of 100%

Input Signal Strength : 10mV (80 dBuV) terminal voltage.

Input Injection Point : TV Tuner input

Color Temp Alignment (B)

Apply full white pattern, select smart setting to be PERSONAL (Brightness 50, Contrast 50, and Color 50). Adjusting SCALER GAIN R G B to reach W/D and luminance in factory mode as below.

Select Color Temp in the factory Mode OSD.The 1931 CIE chromaticity (X, Y) co-ordinates shall be:

Table 4. Reading with Minolta CA-210.

| Color Temp | x | y |
|---|---|---|
| Normal | 0.291 ± 0.005 | 0.302 ± 0.005 |
| Warm | 0.314 ± 0.005 | 0.324 ± 0.005 |
| Cool | 0.273 ± 0.005 | 0.280 ± 0.005 |

If you have not CA-110,the following R,G and B values are for your reference

| | Normal | Cool | Warm |
|---|---|---|---|
| R | 120 | 119 | 122 |
| G | 124 | 116 | 112 |
| B | 120 | 128 | 105 |

Luminance > 350 cd/m$^2$ in the center of the screen when Smart picture at "Personal "and Color temp "Coo "

These group settings about color temp are also applied automatically into CVI/SIDE AV/ /PC/DVI. That means TV/CVI/SIDE AV/PC/DVI are used the same setting.

### 8.1.2 PC mode Display Adjustment

#### 8.1.2.1 AUTO Color adjustment (B)

Set Brightness 100 and Contrast 50 and apply 640x480 @60Hz Mode with 50 Black and 50 White pattern at the factory mode

Activate AUTO-COLOR function for auto ADC offset and gain setup.

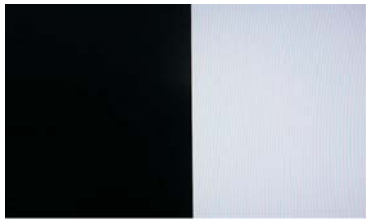
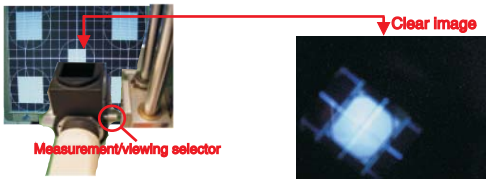


Figure 1. 50-Black 50-White




Color Temp alignment is automatically set during TV alignment according to 4.1.3.Apply full white pattern , check picture must satisfy table 6.

Table 6. Reading with Minolta CA-210.

| Color Temp | x | y |
|---|---|---|
| Normal | 0.291 ± 0.005 | 0.302 ± 0.005 |

Luminance> 400 cd/m$^2$ in the center of the screen when both PC Brightness and Contrast control are 100%.

#### 8.1.2.2 Display quality adjustment

Use timing mode as described in 2.2, and uses the POPO (pixel on pixel off) patternto adjust the clock until no stripe and adjust the phase until clear picture. (AUTO ADJUST hot key: press Volume □ and Volume + keys together for 1 second.)Check all preset 7 modes.

#### 8.1.2.3 Check the analog interface cable

Check the color poor & noise condition of 64 gray scale pattern.

### 8.1.3 Comp video Mode display adjust

#### 8.1.3.1 Auto Color Adjustment (B)

General set-up:

Equipment : Quantum Data Pattern Generator 801GD or 802G or 802R;

Apply 576i, and the pattern STMPEbar shown in figure 2.

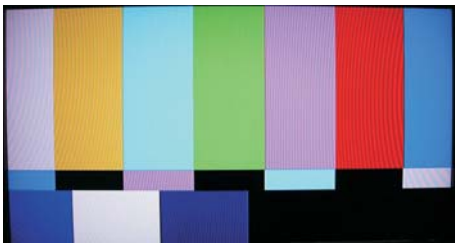


Figure 2. SMTPEbar

Alignment method:

Initial Set-up : Set Smart picture as "Persona" (Brightness=50, Contrast=50, Color=50);

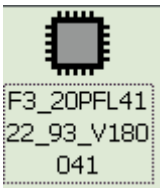
Access to factory OSD first, then to enable AUTO-COLOR to get HD ADC OFFSET and HD ADC GAIN. Check 32 gray scales can be distinguishable.

8.1.3.2 Color Temp alignment is automatically set during TV alignment

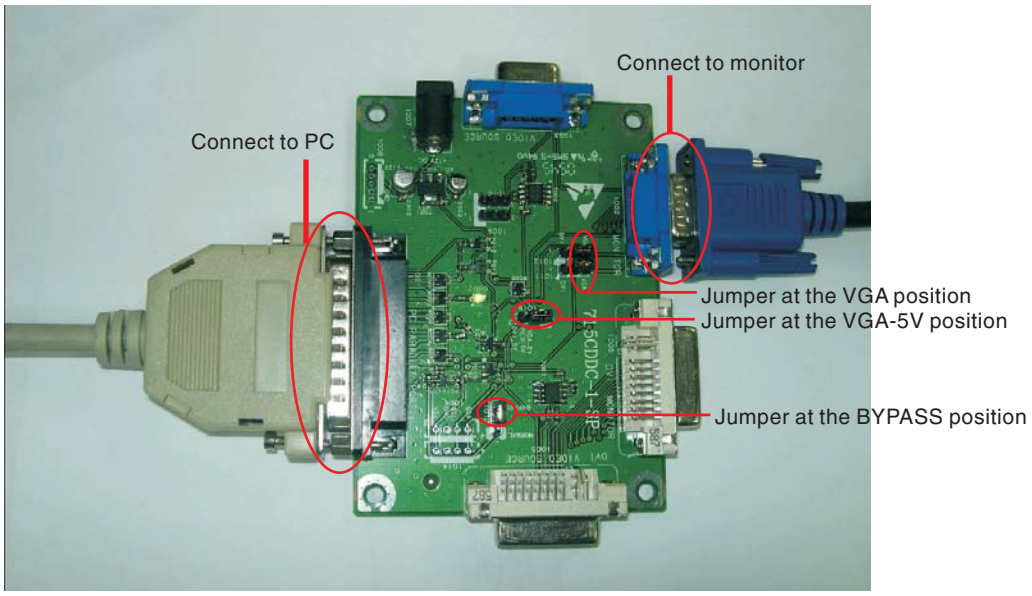
## 8.2 ISP Instructions

Step 1. Install USB driver to your computer from the ISP board USB Driver file.
ISP_TOOL V4.2.0 TPV (958KB,Created day: 2007.01.26)

2. Save the BIN files(F3_20PFL4122_93_V180041) to your computer,

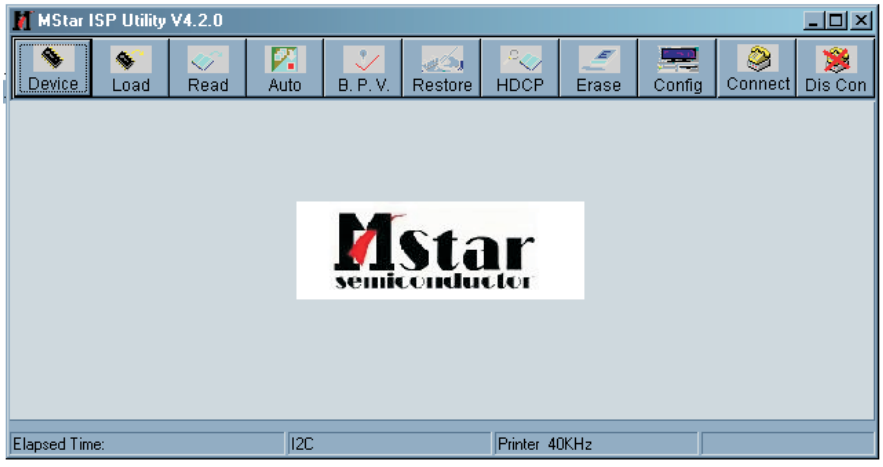



Step 2: Connect to ISP Board,P/N:3138 106 10396.

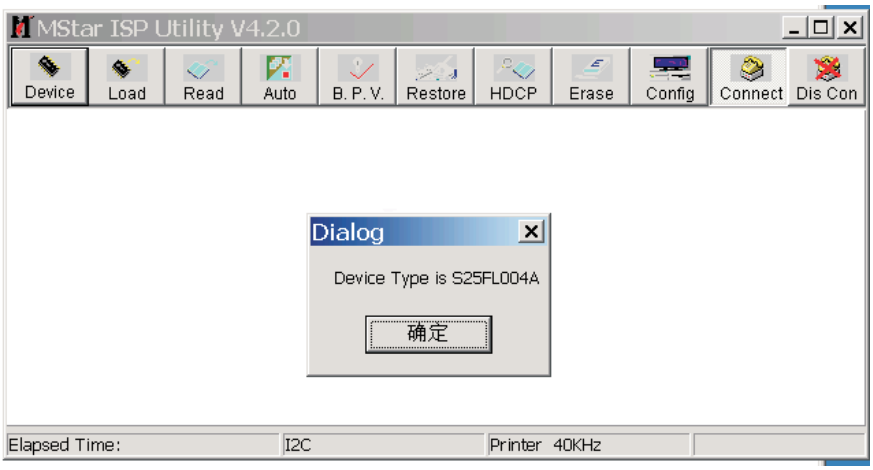



Step 3: Update TV.

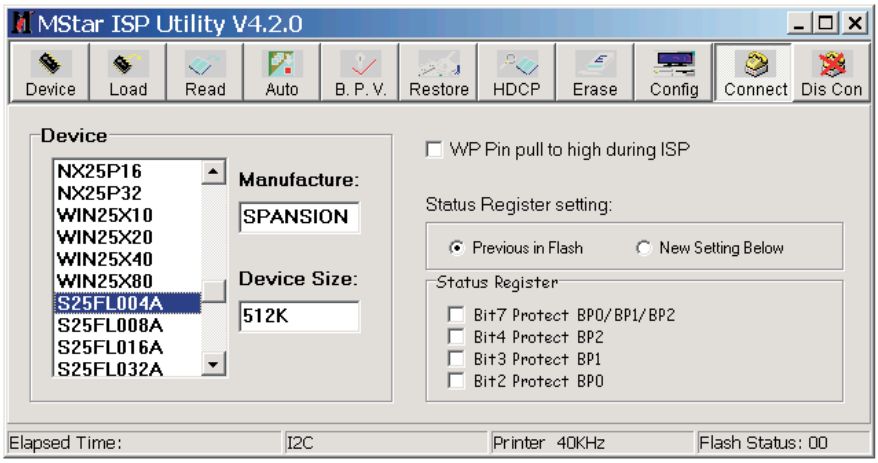
I. Open the ISP_TOOL V4.2.0 TPV.EXE



2. Click "connect",

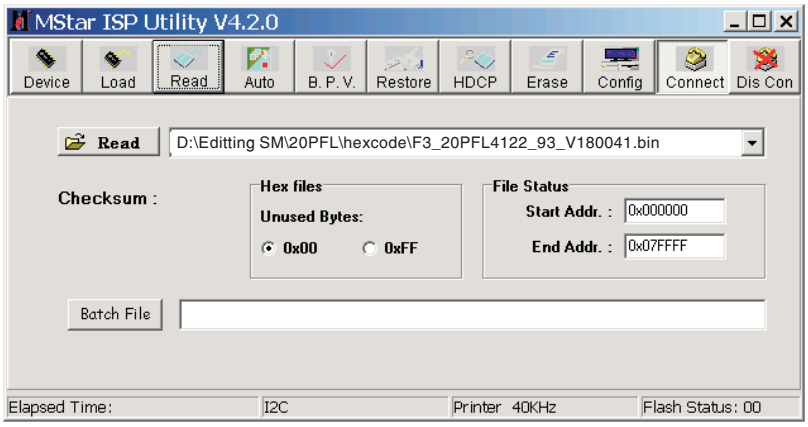


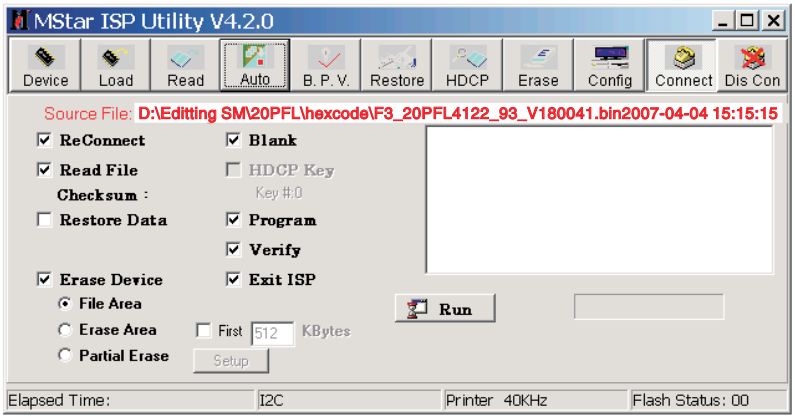

3. Click"Device" to choose the device type S25FL004A.

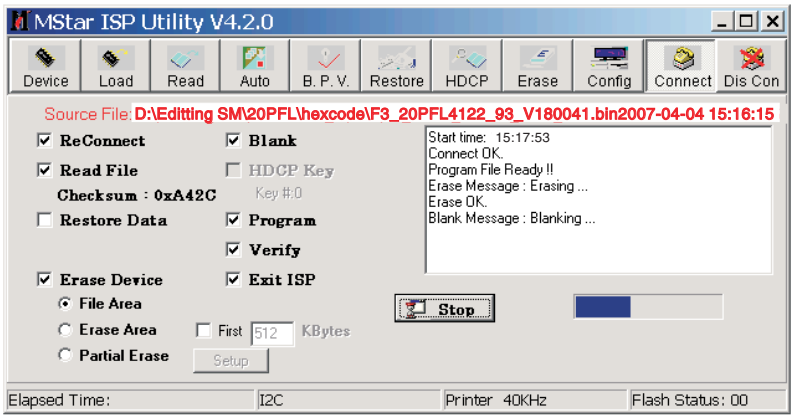


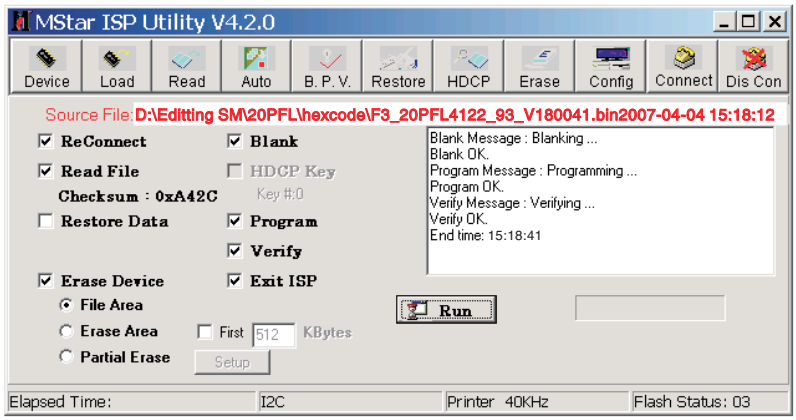

4. Click "Load"to choose the corresponding ISP software according the model. .

5. Click "Read", then click "Auto", and run it until OK.



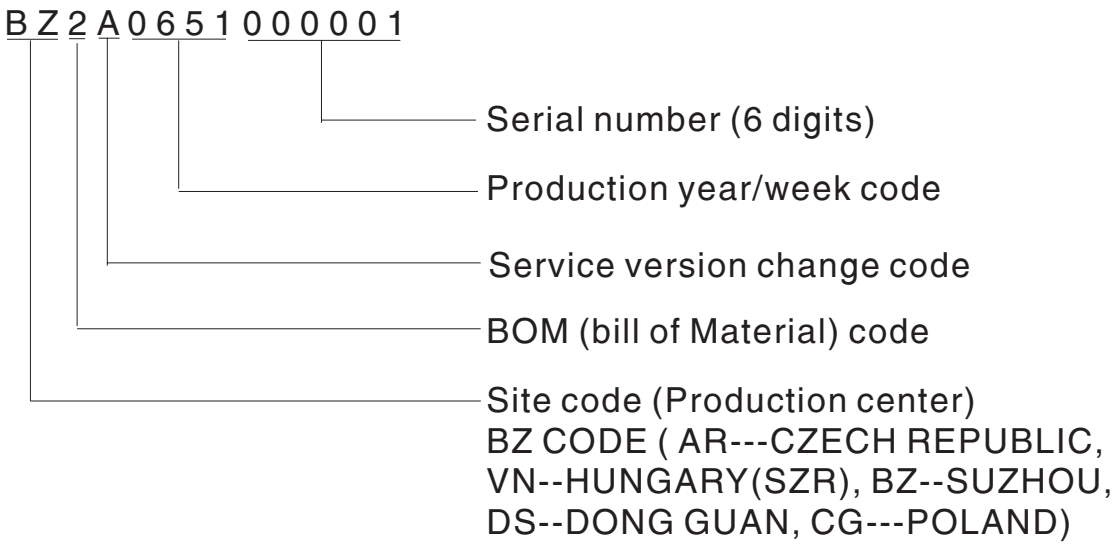



8.3 Serial Number Definition

# BOM Code:

| PANEL SUPPLIER | CODE |
|---|---|
| AU | 1 |
| CPT | 2 |
| LPL(LG) | 3 |
| QDI | 4 |
| CMO | 5 |
| HSD | 6 |
| SVA | 7 |



# 9. Circuit Descriptions, Abbreviations List and IC Data Sheets

Index of this chapter
9.1 Circuit Descriptions
9.2 Abbreviations List
9.3 IC Data Sheets

## 9.1 Circuit Descriptions

### 9.1.1General Description

This LCD TV F3-AS2 platform supports PC analog input up to XGA panel and supports TV (RF) for all China (/93) and AP (/79 /98) systems (PAL B/G, PAL D/K, PAL I, SECAM B/G, SECAM D/K, SECAM L, SECAM L1, NTSC M), YC, CVBS, Y Pb Pr, DVI and PC signal input from SDTV to HDTV (480i/p, 576i/p, 720p, 1080i/p).

This platform LCD-TV uses MST96885LD (One Chip LCD-TV Controller) IC, which has embedded ADC for HD/Analog D-sub input, ITU656/601 digital port for digital data input, SD ADC for CVBS/YC input, video decoder, audio decoder, TXT decoder, Microcontroller, OSD engine and up/down scaler. For displaying, it will connect w/ TTL signal interface to TN VGA panel via FFC cable.

MST96885LD is a high performance and fully integrated IC for multi-function LCD TV/Monitor with resolutions up to SXGA/WXGA. It is configured with an integrated triple-ADC/PLL, an integrated DVI/HDCP/HDMI receiver, a multi-standard TV video and audio decoder, a video de-interlacer, a scaling engine, the MStarACE-3 color engine, an on-screen display controller, an 8-bit MCU and built-in output panel interface. With external frame buffer, 2-D video decoding and processing are fulfilled for high-quality TV application. It supports de-interlaced full-screen video, frame rate conversion, aspect ratio conversion various video sources. To further reduce system costs, the MST96885LD also integrates intelligent power management control capability for green-mode requirements and spread-spectrum support for EMI management.

The MST96885LD enables consumer electronics manufactures to build low cost w/ high quality, feature-rich ATV. It embeds the 2D motion de-interlace to generate smooth picture quality for motion. 2D comb filter also recoveries high details for still picture. The special color processing technology provides favorite and natural color for TV.

### 9.1.2 MST96885LD Function Description

Host CPU

- Embedded 8032 micro controller
- Configurable PWMs and GPIOs
- Low speed ADC inputs for system control.
- SPI bus for external flash
- Supports external MCU option controlled through 4-wire double-data-rate direct MCU bus or 8-bit direct MCU bus

NTSC/PAL/SECAM Video Decoder

- Supports NTSC M, NTSC-J, NTSC-4.43, PAL (B,D,G,H,M,N,I,Nc), and SECAM
- Automatic TV standard detection
- Motion adaptive 2-D comb filter for NTSC/PAL
- 8 configurable CVBS & Y/C S-video inputs
- Supports Teletext level-1.5
- Macrovision detection
- CVBS video output

Multi-Standard TV Sound Decoder

- Supports BTSC/NICAM/A2/EIA-J demodulation and decoding
- FM stereo & SAP demodulation
- L/Rx4, mono, and SIF audio input
- L/R loudspeaker and line outputs
- Supports sub-woofer output
- Built-in audio output DACs
- Audio processing for loudspeaker channel, including volume, balance, mute, tone, EQ, and virtual stereo/surround

Digital Audio Interface

- I2S digital audio input & output
- S/PDIF digital audio input & output
- HDMI audio channel processing capability
- Programmable delay for audio/video synchronization

OSD Plane

-16/256 color palette
- 256/512 1-bit/pixel font
- 128/256 4-bit/pixel font
- Supports texture function
- Supports 4K attribute/code
- Horizontal and vertical stretch of OSD menus

Pattern generator for production test
- Supports OSD MUX and alpha blending capability
- Supports blinking and scrolling for closed caption applications

Video Plane

- 2-D video deinterlacer
- Edge-oriented adaptive algorithm for smooth low-angle edges
- MStar 3rd Generation Advanced Color Engine (MStarACE-3) gives:
    - Brilliant and fresh color
    - Intensified contrast and details
    - Vivid skin tone
    - Sharp edge
    - Enhanced depth of field perception
    - Accurate and independent color control
    - sRGB compliance allows end-user to experience the same colors as viewed on CRTs and other displays
    - Programmable 12-bit RGB gamma CLUT
    - 3-D video noise reduction for SDTV
    - Frame rate conversion

Panel Interface

8-bit LVDS/TTL Panel Interface
- Supports dual link LVDS up to SXGA@75Hz
- Supports 8-bit single TTL panel
- Supports 2 data output formats: Thine & TI data mappings
- Compatible with TIA/EIA
- With 6/8 bits options
- Reduced swing for LVDS for low EMI
- Supports flexible spread spectrum frequency with 360Hz~11.8MHz and up to 25% modulation

VGA In

- Support VGA input up to WXGA
- Support fully VESA standards

Component Video In

- Support component video inputs
- Support 480i / 480p / 576i / 576p /720p /1080i/ 1080p

DRAM Controller

- 16-bit data bus for external frame buffer (SDR or DDR DRAM)
- All system clocks synthesized from a single external clock

## 9.2 Abbreviations List

| | |
|---|---|
| CSM | Customer Service Mode |
| ATSC | Advanced Television Systems Committee, the digital TV standard in the USA |
| DVD | Digital Versatile Disc |
| EEPROM | Electrically Erasable and Programmable Read Only Memory |
| 3DNR | Temporal (3D) Noise Reduction |
| AGC | Automatic Gain Control: algorithm that controls the video input of the feature box |
| FM | Field Memory or Frequency Modulation |
| AM | Amplitude Modulation |
| AP | Asia Pacific |
| ASF | Auto Screen Fit: algorithm that adapts aspect ratio to remove horizontal black bars without discarding video information |
| ATV | See Auto TV |
| Auto TV | A hardware and software control system that measures picture content, and adapts image parameters in a dynamic way |
| AV | External Audio Video |
| AVIP | Audio Video Input Processor |
| B/G | Monochrome TV system. Sound carrier distance is 5.5 MHz |
| ComPair | Computer aided rePair |
| CP | Connected Planet / Copy Protection |
| CSS | Content Scrambling System; An encryption method for MPEG-2 video on DVDs. The algorithm and keys required to decode the disc are stored on the DVD-player |
| CVBS | Composite Video Blanking and Synchronization |
| DFU | Directions For Use: owner's manual |
| DNR | Digital Noise Reduction: noise reduction feature of the set |
| DSP | Digital Signal Processing |
| DST | Dealer Service Tool: special remote control designed for service technicians |
| DTCP | Digital Transmission Content Protection; A protocol for protecting digital audio/video content that is traversing a high speed serial bus, such as IEEE-1394 |
| DVI(-d) | Digital Visual Interface (d= digital only) |
| EAS | Emergency Alert Signalling; A cable TV standard (SCTE18) to signal emergency information to digital terminal devices |
| E-DDC | Enhanced Display Data Channel (VESA standard for communication channel and display). Using E-DDC, the video source can read the EDID information form the display. |
| EDID | Extended Display Identification Data (VESA standard) |
| EMI | Electro Magnetic Interference |
| EMM | Entitlement Management Message |
| EPLD | Erasable Programmable Logic Device |
| EU | Europe |
| FBL | Fast BLanking: DC signal accompanying RGB signals |
| FDS | Full Dual Screen (same as FDW) |
| FDW | Full Dual Window (same as FDS) |
| FLASH | FLASH memory |
| FTV | Flat TeleVision |
| H | H_sync to the module |
| HD | High Definition |
| HDD | Hard Disk Drive |

| | |
|---|---|
| NTSC | National Television Standard Committee. Color system mainly used in North America and Japan. Color carrier NTSC M/N= 3.579545 MHz, NTSC 4.43= 4.433619 MHz (this is a VCR norm, it is not transmitted off-air) |
| NVM | Non-Volatile Memory: IC containing TV related data such as alignments |
| OSD | On Screen Display |
| PLL | Phase Locked Loop. Used for e.g. |
| LVDS | Low Voltage Differential Signalling |
| PAL | Phase Alternating Line. Color system mainly used in West Europe (color carrier= 4.433619 MHz) and South America (color carrier PAL M= 3.575612 MHz and PAL N= 3.582056MHz) |
| PCB | Printed Circuit Board (same as PWB) |
| PCM | Pulse Code Modulation |
| PWB | Printed Wiring Board (same as "PCB") |
| PWM | Pulse Width Modulation |
| QAM | Quadrature Amplitude Modulation;modulation method |
| RAM | Random Access Memory |
| RGB | Red, Green, and Blue. The primary color signals for TV. By mixing levels of R, G, and B, all colors (Y/C) are reproduced. |
| RC | Remote Control RC5 / RC6 Signal protocol from the remote control receiver |
| RESET | RESET signal |
| ROM | Read Only Memory |
| SAM | Service Alignment Mode |
| SCART | Syndicat des Constructeurs d'Appareils Radiorecepteurs et Televisieurs |
| SCL | Serial Clock I2C |
| SCL-F | CLock Signal on Fast I2C bus |
| SD | Standard Definition |
| SDA | Serial Data I2C |
| SDA-F | DAta Signal on Fast I2C bus |
| SDI | Serial Digital Interface, see ITU-656 |
| SDRAM | Synchronous DRAM |
| SECAM | SEequence Couleur Avec Memoire. Color system mainly used in France and East Europe. Color carriers= 4.406250 MHz and 4.250000 MHz |
| SIF | Sound Intermediate Frequency |
| SMPS | Switched Mode Power Supply |
| SOG | Sync On Green |
| SOPS | Self Oscillating Power Supply |
| I2C | Integrated IC bus |
| I2D | Integrated IC Data bus |
| I2S | Integrated IC Sound bus |
| IB | In Band channel |
| IF | Intermediate Frequency |
| Interlaced | Scan mode where two fields are used to form one frame. Each field contains half the number of the total amount of lines. The fields are written in "pairs", causing line flicker. |
| IR | Infra Red |
| IRQ | Interrupt Request |
| LATAM | Latin America |
| LCD | Liquid Crystal Display |
| LED | Light Emitting Diode |
| LPL | LG.Philips LCD (supplier) |
| MUTE | MUTE Line |

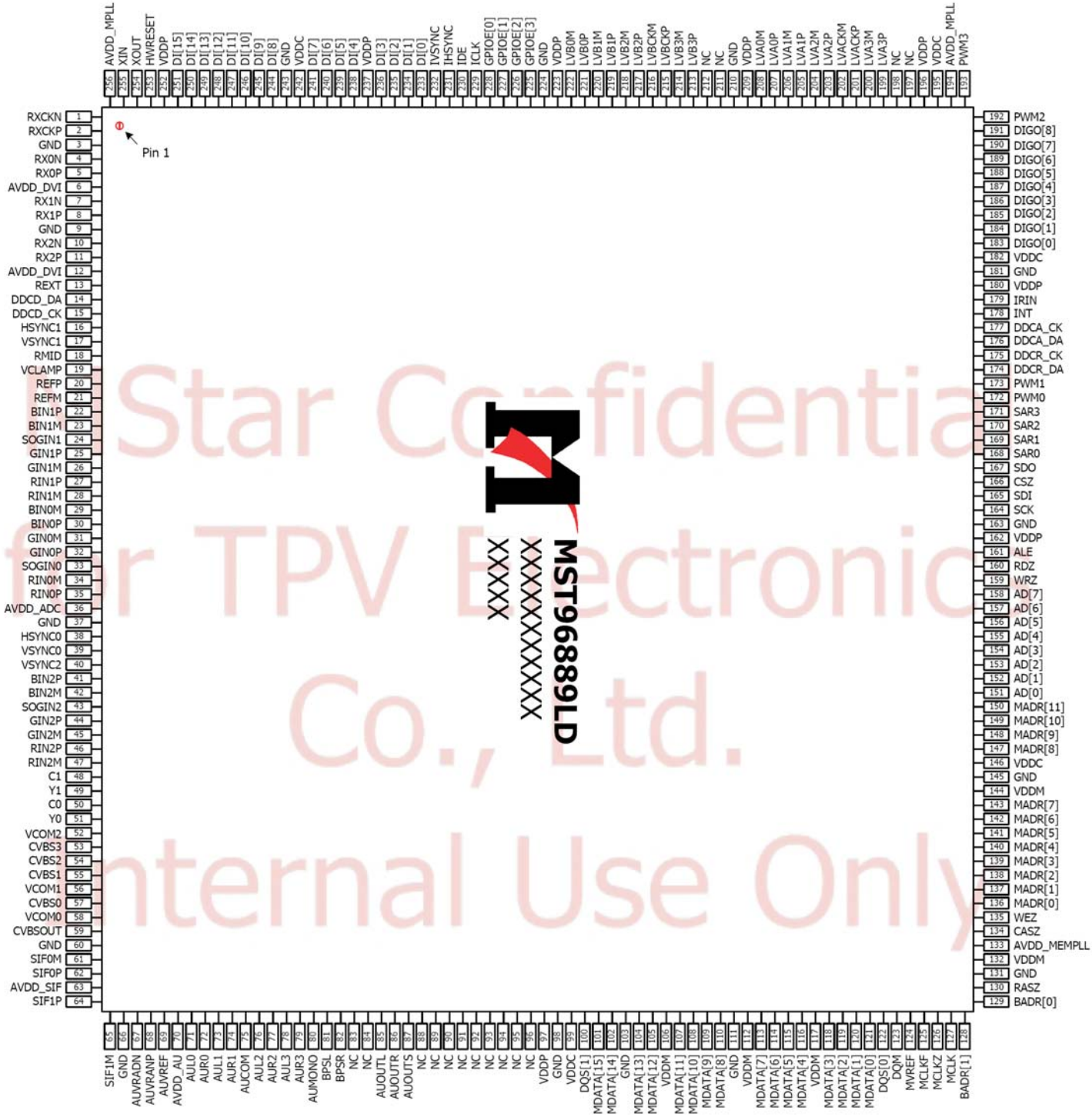
| | |
|---|---|
| TFT | Thin Film Transistor |
| SRAM | Static RAM |
| STBY | STandBY |
| SOG | Sync On Green |
| SVGA | 800x600 (4:3) |
| SVHS | Super Video Home System |
| SW | Software |
| SWAN | Spatial temporal Weighted Averaging Noise reduction |
| SXGA | 1280x1024 |
| TMDS | Transmission Minimized Differential Signalling |
| UXGA | 1600x1200 (4:3) |
| V | V-sync to the module |
| VCR | Video Cassette Recorder |
| VESA | Video Electronics Standards Association |
| VGA | 640x480 (4:3) |
| VL | Variable Level out: processed audio output toward external amplifier |
| VSB | Vestigial Side Band; modulation method |
| WYSIWYR | What You See Is What You Record: record selection that follows main picture and sound |
| WXGA | 1280x768 (15:9) |
| XGA | 1024x768 (4:3) |
| Y | Luminance signal |
| YPbPr | Component video. Luminance and scaled color difference signals (B-Y and R-Y) |

## 9.3 IC Data Sheets

This section shows the internal block diagrams and pin configurations of ICs that are drawn as "black boxes" in the electrical diagrams (with the exception of "memory" and "logic" ICs).

### 9.3.1 IC Data Sheet-MST96885L(U4101)

PIN Assignments

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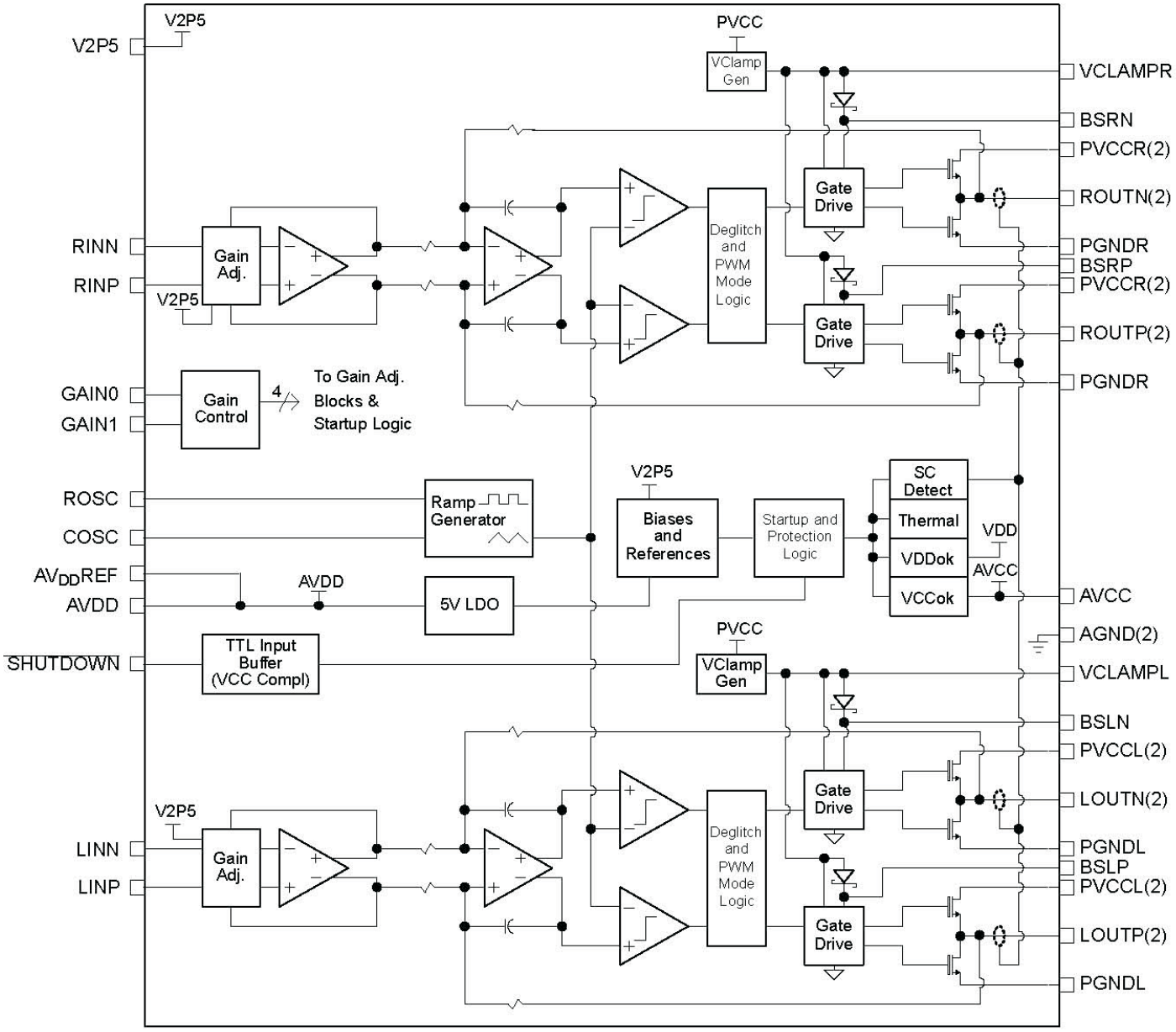
r TPV Electronic
Co., Ltd.
nternal Use Only

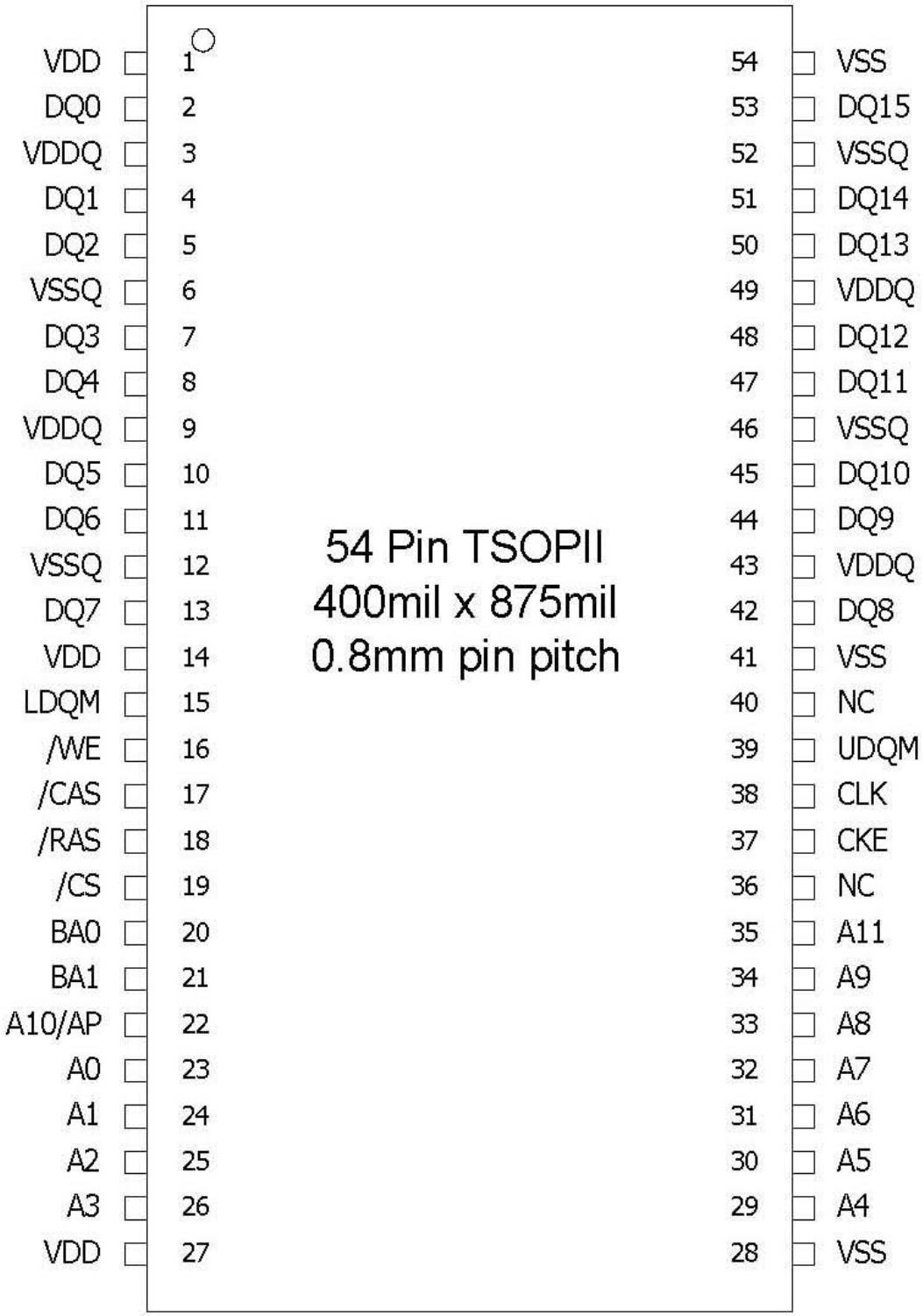
9.3.2 IC Data Sheet-TPA3005D2PHPR

## FUNCTIONAL BLOCK DIAGRAM

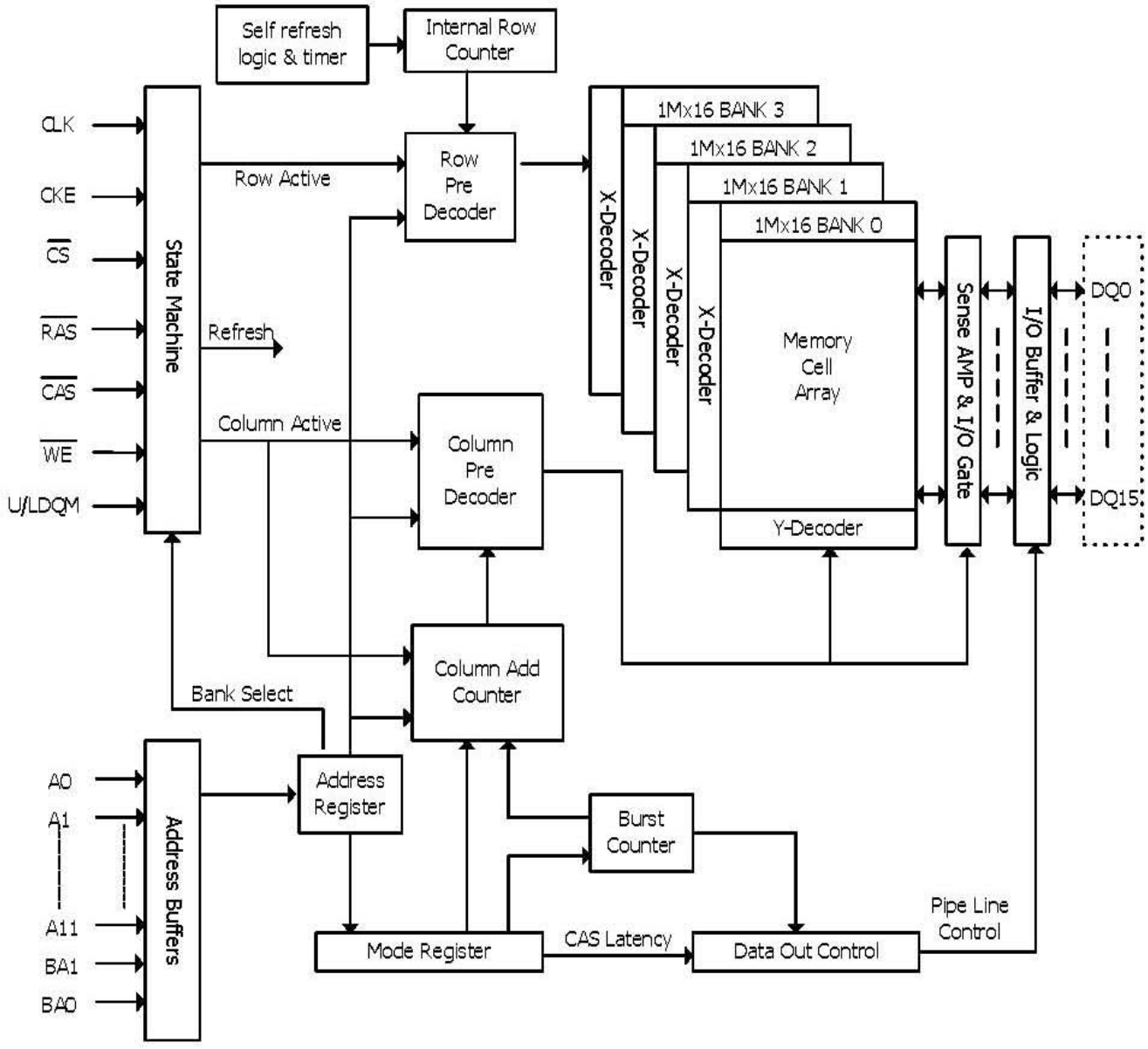


9.3.3 IC Data Sheet-HY57V641620ETP(U4203)

## PIN ASSIGNMENTS



## FUNCTIONAL BLOCK DIAGRAM

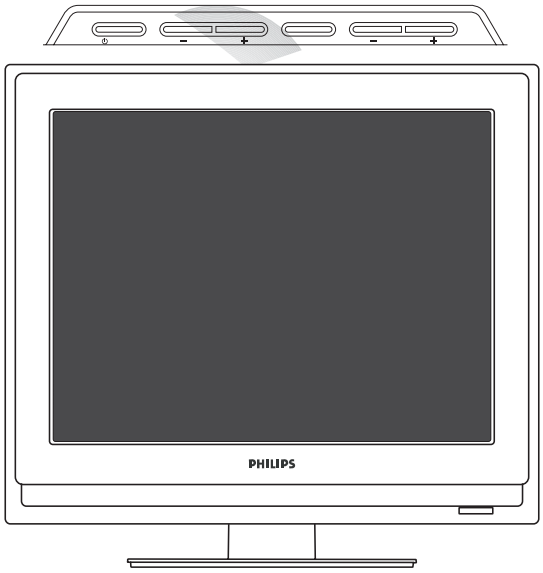


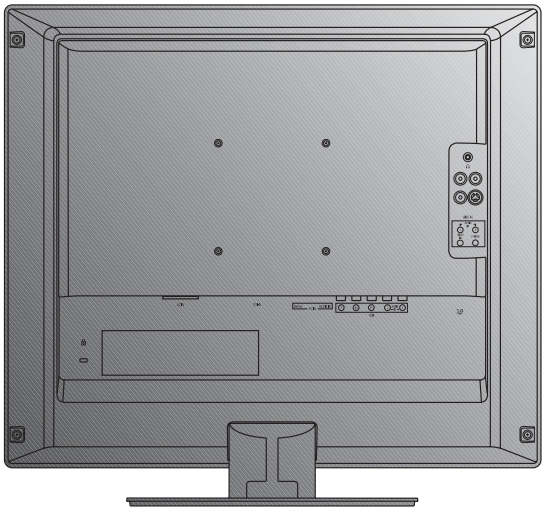
# 10.Recommended/Spare Parts List

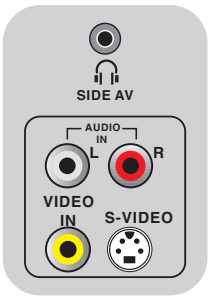
Index of this chapter

10.1 Styling Sheet
10.2 Recommended Parts List
10.3 Spare Parts List

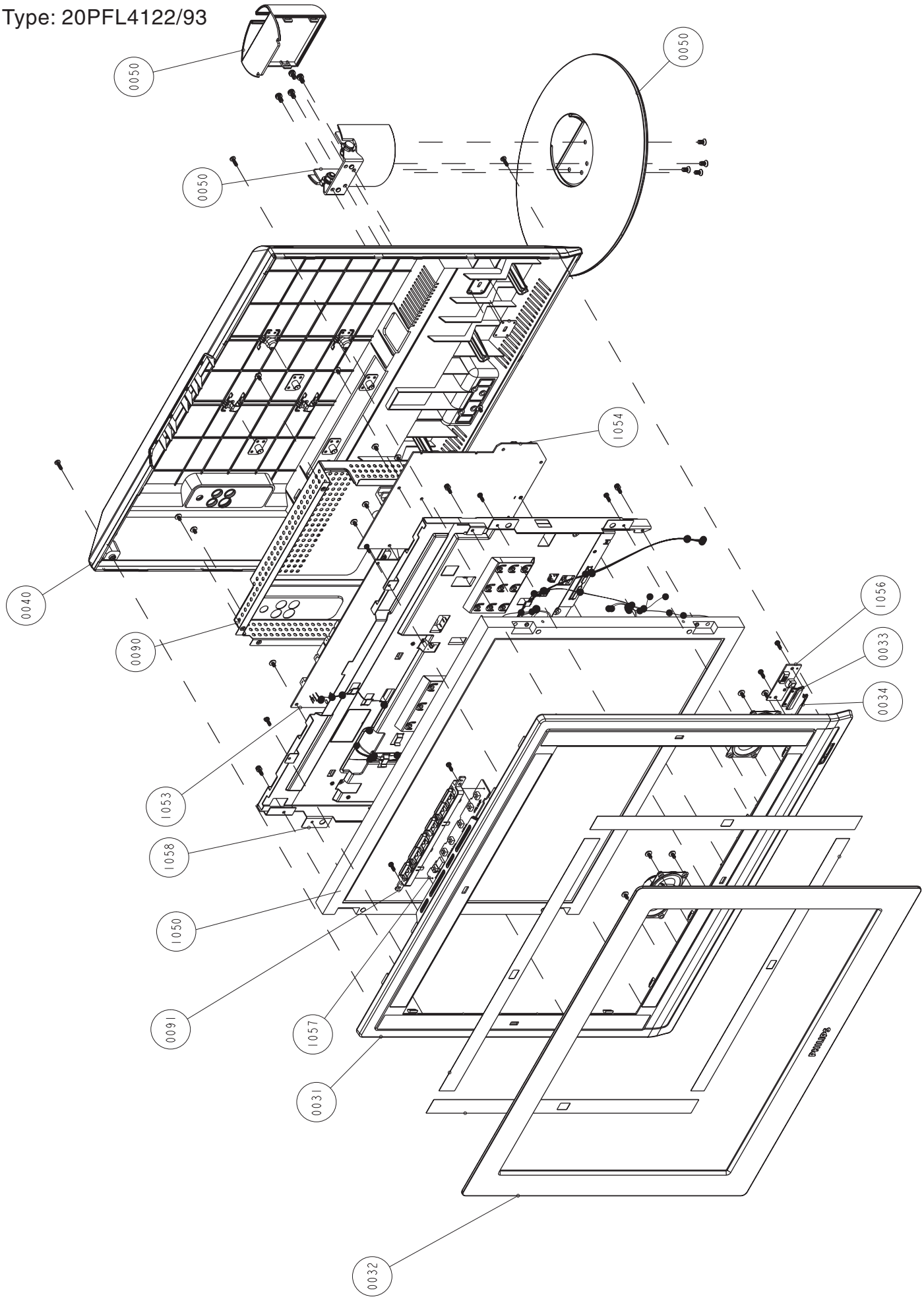
10.1 Styling sheet





Type: 20PFL4122/93



Mechanical Parts List

| Styling: | | | | | 20PFL4122/93(CPT) |
|---|---|---|---|---|---|
| Item | Philips 12NC | 18NC | Description | Spare Parts Yes/No | |
| 31 | | P34T0191 WSA1T0100 | BEZEL | Yes | √ |
| 32 | | P34T0193PAAA1T0100 | FRONT DECO | Yes | √ |
| 33 | | P33T0080ABVA1EA000 | LENS-POWER | Yes | √ |
| 34 | | P33T0081ABWA1AA000 | LENS RING | Yes | √ |
| 40 | | 705TP734047 | REAR COVER ASSY | Yes | √ |
| 50 | | P37T0052 1 WS | BASE | Yes | √ |
| 90 | | P15T0154101 | METAL SHIELD - AP/CHINA | Yes | √ |
| 91 | | P33T0082 WTA1AA000 | BUTTON FUNCTION | Yes | √ |
| 1050 | | 750TVCA1V7C11N | Panel TV CLAA201VA07C CPT | Yes | √ |
| 1053 | | CBPF72MDP3 | SCALER PCB ASSY | Yes | √ |
| 1054 | | PWPFA66CR1P | POWER PCB ASSY | Yes | √ |
| 1056 | | IRPF7PA8 | IR PCB ASSY | Yes | √ |
| 1057 | | KEPF7PA7 | KEY BOARD ASSY | Yes | √ |
| 1058 | | 705TP715018 | MAIN FRAME+WIRE ASSY | Yes | √ |

Software change record

| Philips Model | scaler board | Panel | Latest software release | | |
|---|---|---|---|---|---|
| | | | SW name | Version | Effective date |
| 20PFL4122/93 | CBPF72MDP3 | CPT | 100TP101000301 | V2.00 | 2007.04.04 |

Notes: The latest version of firmware can replace all of prevenient versions.

AS2 Project Pannel to LVDS cable

| Project | Panel | Item | Code NO. | Description | LVDS Item | Code NO. | Description |
|---|---|---|---|---|---|---|---|
| 20PFL4122/93 | CPT | 1050 | 750TVCA1V7C11N | Panel TV CLAA201VA07C CPT | 8803 | 089T176E 16909 | FFC CABLE 50P 295mm P0.5 |

AS2 LCD TV P-Cord, RC

| MODEL | P-Cord | | RC | |
|---|---|---|---|---|
| | Code NO. | Description | Code NO. | Description |
| 20PFL4122/93(CPT) | 089G412A18NIS1 | MAINSCORD AUS/NZ 10A 1M8 BK | 098TRABD4BTPHR | REMOTE CONTROL RC2023611/01B |
| | 089G414A18NLSC | MAINSCORD CCEE 10A 1M8 DET BK | | |

10.2 Recommended Parts List

Type:20PFL4122/93(CPT)

| Item | 18 NC | Description |
|---|---|---|
| 1172 | 089G412A18NIS1 | MAINSCORD AUS/NZ 10A 1M8 BK |
| 1172 | 089G414A18NLSC | MAINSCORD CCEE 10A 1M8 DET BK |
| 8803 | 089T176E 16909 | FFC CABLE 50P 295mm P0.5 |
| 8354 | 095T8014 11936 FP | HARNESS 11P-11P 110mm 46510 |
| 1173 | 098TRABD4BTPHR | REMOTE CONTROL RC2023611/01B |
| 1058 | 705TP715018 | MAIN FRAME+WIRE ASSY |
| 30 | 705TP734046 | FRONT BEZEL ASSY |
| 40 | 705TP734047 | REAR COVER ASSY |
| 50 | P37T0052 1 WS | BASE |
| 451 | P44TA009101 | CUSHION -R (BIG PACKING) |
| 452 | P44TA009201 | CUSHION -L (BIG PACKING) |
| 505 | P44TA009813 1A | CARTON (BIG PACKING) |
| 515 | P44TA009813 1A | CARTON (BIG PACKING) |
| 450 | P44TA009813 1A | CARTON (BIG PACKING) |
| U7103 | 056G 563902 | IC AME8815AEGT180Z SOT-223 AME |
| U7104 | 056G 563903 | IC AME8815AEGT330Z SOT-223 AME |
| U6201 | 056G 616901 | IC TPA3005D2PHP PQFP48 |
| U1101 | 056G1133 34 | M24C02-WMN6TP |
| U5101 | 056G1133 34 | M24C02-WMN6TP |
| U1101 | 056T1133907 | IC AT24C02BN-10SU-1.8 SO8 |
| U5101 | 056T1133907 | IC AT24C02BN-10SU-1.8 SO8 |
| U4104 | 056G113353A | IC M24C32-WMN6T SO-8 ST |
| U4104 | 056G1133909 | IC AT24C32AN-10SU-2.7 SO8 ATMEL |
| U4202 | 056T1133917 | IC S25FL004A SO-8 |
| U4202 | 056T1133923 | IC MX25L4005AM2C-12G SOP-8 |

Model: 20PFL4122/93(CPT) 12NC:8670 000 27396

| Item | Description | 18NC |
|---|---|---|
| **Mechanical Parts** | | |
| 30 | 705TP734046 | FRONT BEZEL ASSY |
| 40 | 705TP734047 | REAR COVER ASSY |
| 50 | P37T0052 1 WS | BASE |
| 1058 | 705TP715018 | MAIN FRAME+WIRE ASSY |
| **Packing parts** | | |
| 450 | P44TA009813 1A | CARTON (BIG PACKING) |
| 451 | P44TA009101 | CUSHION -R (BIG PACKING) |
| 452 | P44TA009201 | CUSHION -L (BIG PACKING) |
| 453 | P45T 46010 | P.E. BAG |
| 505 | P44TA009813 1A | CARTON (BIG PACKING) |
| 515 | P44TA009813 1A | CARTON (BIG PACKING) |
| **Accessory** | | |
| 1172 | 089G412A18NIS1 | MAINSCORD AUS/NZ 10A 1M8 BK |
| 1172 | 089G414A18NLSC | MAINSCORD CCEE 10A 1M8 DET BK |
| 1173 | 098TRABD4BTPHR | REMOTE CONTROL RC2023611/01B |
| | 705TZ701003 | DFU ASSY |
| **Miscellanea** | | |
| 1185 | 078T 488902 M | SPEAKER 8 OHM 3W 71x41mm |
| 1186 | 078T 488902 M | SPEAKER 8 OHM 3W 71x41mm |
| 8351 | 095T8014 10935 FP | HARNESS 7P+3P-6P+4P 570+270mm 46507 |
| 8354 | 095T8014 11936 FP | HARNESS 11P-11P 110mm 46510 |
| 8801 | 095T8013 2972 FP | HARNESS 2P 360mm 46509 |
| 8802 | 095T8013 2971 FP | HARNESS 2P 520mm 46508 |
| 8803 | 089T176E 16909 | FFC CABLE 50P 295mm P0.5 |
| **LCD Panel** | | |
| 1050 | 750TVCA1V7C11N | Panel TV CLAA201VA07C CPT |
| **PCB Assy** | | |
| 1053 | CBPF72MDP3 | SCALER PCB ASSY |
| 1054 | PWPFA66CR1P | POWER PCB ASSY |
| 1056 | IRPF7PA8 | IR PCB ASSY |
| 1057 | KEPF7PA7 | KEY BOARD ASSY |
| **PCB Assy** | | |
| 1053 | CBPF72MDP3 | SCALER PCB ASSY |
| **Various** | | |
| 1256 | 705TP756050 | Serial IIC EEPROM ASSY - CPT |
| 1257 | 705TP756051 | SPI FLASH ASSY |
| CN1101 | 088G353A15F LS | D-SUB CONN 15PIN F 900-261521-02-A |
| CN1101 | 088G353A15F LS | D-SUB CONN 15PIN F 900-261521-02-A |
| CN1101 | 088T353A15F HJ | D-SUB 15PIN |
| CN1101 | 088T353A15FHST | D-SUB CONN 15PIN F (WITH SCREW UNLOCKED) |
| CN2201 | 088T 78 13928 S | RCA JACK 1*3 G/B/R |
| CN2201 | 088T 78 13928 TN | RCA JACK 1*3 G/B/R |
| CN2202 | 088T 78 13932 S | RCA JACK + S JACK Y/B |
| CN2202 | 088T 78 13932 TN | RCA JACK + S JACK Y/B |
| CN5101 | 088G 35424FH1S | DVI CONN 24P F RIGHT ANGLE 1241-140-154- |
| CN6101 | 088G 302902 FP | PHONE JACK 3.5mm 5P GREEN 69020 |
| CN6102 | 088T 78 13931 TN | RCA JACK 2*1 W/R |
| CN6103 | 088T 78 13929 S | RCA JACK 1*2 W/R |
| CN6103 | 088T 78 13929 TN | RCA JACK 1*2 W/R |
| CN6203 | 088T 302901 TN | PHONE JACK 3.5mm 7P BLACK 5102-84V-021-5 |
| CN7503 | 033G801950P | FPC/FFC CONNECTOR 0.5MM 50P |
| TH7401 | 061G 56075 WT | PTC KMC 5S075R001-0.75MA |
| TU2101 | 094T PALBDI 1P | TUNER, FQ1256/ I H-5 |
| X4101 | 093G 22S 53 A | CRYSTAL 14M318 18P SMD-49 |
| X4101 | 093G 22S903 C | CRYSTAL 14M318 18P HC49/S |
| ⊣▮⊢ | | |
| C1101 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C1102 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C1103 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C1104 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C1105 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C1109 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C1110 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C1111 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C1112 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C1113 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C1114 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C1115 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C2102 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C2105 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C2106 | 065G060322031J | CAP CHIP 0603 22P 50V NPO +/-5% |
| C2107 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C2108 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C2110 | 067G305V102 3 | EC CAP 1000UF M 16V |
| C2111 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C2202 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C2203 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C2204 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C2205 | 065G060310221J | CAP CHIP 0603 1N 25V NPO +/-5% |
| C2209 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C2210 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C2211 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C2218 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C2220 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C2226 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C4101 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4103 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4104 | 065G1206106A7Z | CER2 1206 Y5V 10V 10U P8020 R |
| C4105 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4106 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4107 | 065G060322031J | CAP CHIP 0603 22P 50V NPO +/-5% |
| C4108 | 065G060322031J | CAP CHIP 0603 22P 50V NPO +/-5% |
| C4109 | 067G305V100 7 | EC 10uF 50V KM 5x11mm |
| C4110 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4111 | 065G0603105A7Z | CAP CHIP 0603 1U 10V Y5V -20%+80% |
| C4112 | 065G1206475 22 | 4.7U/25V X7R |
| C4113 | 065G1206106A7Z | CER2 1206 Y5V 10V 10U P8020 R |
| C4114 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4115 | 065G1206106A7Z | CER2 1206 Y5V 10V 10U P8020 R |
| C4116 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4117 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4118 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4119 | 065G1206106A7Z | CER2 1206 Y5V 10V 10U P8020 R |
| C4120 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4121 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4122 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4123 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4124 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4125 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4126 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4127 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4129 | 065G1206106A7Z | CER2 1206 Y5V 10V 10U P8020 R |
| C4130 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4131 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4132 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4133 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4134 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4135 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C4136 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C4137 | 065G060347312K | CAP CHIP 0603 47N 16V X7R +/-10% |
| C4138 | 065G1206106A7Z | CER2 1206 Y5V 10V 10U P8020 R |
| C4139 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4140 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4141 | 065G1206106A7Z | CER2 1206 Y5V 10V 10U P8020 R |
| C4142 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4143 | 065G1206106A7Z | CER2 1206 Y5V 10V 10U P8020 R |
| C4144 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4146 | 065G1206106A7Z | CER2 1206 Y5V 10V 10U P8020 R |
| C4147 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4148 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4149 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4150 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4151 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4152 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4201 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4202 | 065G1206106A7Z | CER2 1206 Y5V 10V 10U P8020 R |
| C4203 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4204 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4205 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4206 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4207 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C4208 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C5101 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |

| | | |
|---|---|---|
| C5106 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C6102 | 065G060322031J | CAP CHIP 0603 22P 50V NPO +/-5% |
| C6103 | 065G080556131J | CAP CHIP 0805 560P 50V NPO +/-5% |
| C6104 | 065G060322031J | CAP CHIP 0603 22P 50V NPO +/-5% |
| C6105 | 065G080556131J | CAP CHIP 0805 560P 50V NPO +/-5% |
| C6106 | 065G060322031J | CAP CHIP 0603 22P 50V NPO +/-5% |
| C6107 | 065G080556131J | CAP CHIP 0805 560P 50V NPO +/-5% |
| C6108 | 065G0805225 17 | CHIP 2.2UF 16V Y5V |
| C6110 | 065G0805225 17 | CHIP 2.2UF 16V Y5V |
| C6111 | 065G0805225 17 | CHIP 2.2UF 16V Y5V |
| C6114 | 065G0805225 17 | CHIP 2.2UF 16V Y5V |
| C6116 | 065G0805225 17 | CHIP 2.2UF 16V Y5V |
| C6118 | 065G0805225 17 | CHIP 2.2UF 16V Y5V |
| C6121 | 065G060322031J | CAP CHIP 0603 22P 50V NPO +/-5% |
| C6122 | 065G080556131J | CAP CHIP 0805 560P 50V NPO +/-5% |
| C6123 | 065G060322031J | CAP CHIP 0603 22P 50V NPO +/-5% |
| C6124 | 065G080556131J | CAP CHIP 0805 560P 50V NPO +/-5% |
| C6126 | 065G060322031J | CAP CHIP 0603 22P 50V NPO +/-5% |
| C6127 | 065G080556131J | CAP CHIP 0805 560P 50V NPO +/-5% |
| C6201 | 065G0805105 12 | 1UF +-10% 6V X7R |
| C6201 | 065G080510512K | CAP CHIP 0805 1U 16V X7R +/-10% |
| C6202 | 065G080510432K | CAP CHIP 0805 100N 50V X7R +/-10% |
| C6203 | 067G215R471 4C | EC 470uF 25V LZ 10x12.5mm |
| C6203 | 067G215R471 4K | EC 470uF 25V EB 10x13mm |
| C6205 | 065G0603105A7Z | CAP CHIP 0603 1U 10V Y5V -20%+80% |
| C6206 | 065G0603105A7Z | CAP CHIP 0603 1U 10V Y5V -20%+80% |
| C6207 | 065G0603105A7Z | CAP CHIP 0603 1U 10V Y5V -20%+80% |
| C6208 | 065G0603105A7Z | CAP CHIP 0603 1U 10V Y5V -20%+80% |
| C6209 | 065G0603105A7Z | CAP CHIP 0603 1U 10V Y5V -20%+80% |
| C6210 | 065G080510522K | CAP CHIP 0805 1U 25V X7R +/-10% |
| C6211 | 065G080522131J | CHIP CAP 0805 220PF J 50V NPO |
| C6212 | 065G060310422K | CAP CHIP 0603 100N 25V X7R +/-10% |
| C6213 | 065G121010627Z | CER 1210 10U 25V Y5V -20%+80% |
| C6214 | 065G060310422K | CAP CHIP 0603 100N 25V X7R +/-10% |
| C6215 | 065G080510522K | CAP CHIP 0805 1U 25V X7R +/-10% |
| C6216 | 065G080522427Z | CAP CHIP 0805 220N 25V Y5V -20%+80% |
| C6217 | 065G080522427Z | CAP CHIP 0805 220N 25V Y5V -20%+80% |
| C6218 | 065G060310422K | CAP CHIP 0603 100N 25V X7R +/-10% |
| C6219 | 065G060310422K | CAP CHIP 0603 100N 25V X7R +/-10% |
| C6220 | 065G121010627Z | CER 1210 10U 25V Y5V -20%+80% |
| C6221 | 065G121010627Z | CER 1210 10U 25V Y5V -20%+80% |
| C6222 | 065G060310131J | CAP CHIP 0603 100P 50V NPO +/-5% |
| C6223 | 065G060310131J | CAP CHIP 0603 100P 50V NPO +/-5% |
| C6224 | 065G060310422K | CAP CHIP 0603 100N 25V X7R +/-10% |
| C6225 | 065G060310422K | CAP CHIP 0603 100N 25V X7R +/-10% |
| C6226 | 065G1206474 32 | CAP CHIP 0.47uF 50V X7R +/- 10% |
| C6227 | 065G080522427Z | CAP CHIP 0805 220N 25V Y5V -20%+80% |
| C6228 | 065G080522427Z | CAP CHIP 0805 220N 25V Y5V -20%+80% |
| C6229 | 065G060310422K | CAP CHIP 0603 100N 25V X7R +/-10% |
| C6230 | 065G060310422K | CAP CHIP 0603 100N 25V X7R +/-10% |
| C6231 | 065G121010627Z | CER 1210 10U 25V Y5V -20%+80% |
| C6232 | 065G121010627Z | CER 1210 10U 25V Y5V -20%+80% |
| C6233 | 065G060310131J | CAP CHIP 0603 100P 50V NPO +/-5% |
| C6234 | 065G060310131J | CAP CHIP 0603 100P 50V NPO +/-5% |
| C6235 | 065G060310422K | CAP CHIP 0603 100N 25V X7R +/-10% |
| C6236 | 065G060310422K | CAP CHIP 0603 100N 25V X7R +/-10% |
| C6237 | 065G1206474 32 | CAP CHIP 0.47uF 50V X7R +/- 10% |
| C6245 | 067G305V100 7 | EC 10uF 50V KM 5x11mm |
| C6246 | 067G305V100 7 | EC 10uF 50V KM 5x11mm |
| C6247 | 065G060310332K | CAP CHIP 0603 10N 50V X7R +/-10% |
| C6248 | 065G060310332K | CAP CHIP 0603 10N 50V X7R +/-10% |
| C7104 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7105 | 067G215R471 4C | EC 470uF 25V LZ 10x12.5mm |
| C7105 | 067G215R471 4K | EC 470uF 25V EB 10x13mm |
| C7110 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7111 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7112 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7113 | 067G305V100 7 | EC 10uF 50V KM 5x11mm |
| C7114 | 067G305M101 2C | EC 100uF 10V SK 5x7mm |
| C7114 | 067G305M101 2K | EC 100uF 10V SS-H 5x7mm |
| C7115 | 067G305V100 7 | EC 10uF 50V KM 5x11mm |
| C7116 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7117 | 067G305M101 2C | EC 100uF 10V SK 5x7mm |
| C7117 | 067G305M101 2K | EC 100uF 10V SS-H 5x7mm |
| C7118 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7119 | 067G215R471 4C | EC 470uF 25V LZ 10x12.5mm |
| C7119 | 067G215R471 4K | EC 470uF 25V EB 10x13mm |
| C7121 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7122 | 065G080533427Z | CAP CHIP 0805 330N 25V Y5V -20%+80% |
| C7123 | 067G305V100 7 | EC 10uF 50V KM 5x11mm |
| C7124 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7125 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7126 | 067G215R471 4C | EC 470uF 25V LZ 10x12.5mm |
| C7126 | 067G215R471 4K | EC 470uF 25V EB 10x13mm |
| C7132 | 065G080533427Z | CAP CHIP 0805 330N 25V Y5V -20%+80% |
| C7133 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7201 | 065G080510527Z | CAP CHIP 0805 1U 25V Y5V -20%+80% |
| C7202 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7204 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7205 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7206 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7208 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7209 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7210 | 067G305V101 4L | EC 100uF 25V RGA 8x11.5mm |
| C7213 | 067G215R471 4C | EC 470uF 25V LZ 10x12.5mm |
| C7213 | 067G215R471 4K | EC 470uF 25V EB 10x13mm |
| C7301 | 065G060333031J | CAP CHIP 0603 33P 50V NPO +/-5% |
| C7302 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7303 | 065G060333031J | CAP CHIP 0603 33P 50V NPO +/-5% |
| C7304 | 065G060310437Z | CAP CHIP 0603 100N 50V Y5V -20%+80% |
| C7501 | 065G060322031J | CAP CHIP 0603 22P 50V NPO +/-5% |
| | | |
| R1101 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R1102 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R1103 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R1104 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R1105 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R1106 | 061G0603223 | RST CHIPR 22 KOHM +-5% 1/10W |
| R1110 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R1113 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R1114 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R1115 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R1116 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R1117 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R1118 | 061G0603750 9F | RST CHIPR 75 OHM +-1% 1/10W |
| R1119 | 061G0603750 9F | RST CHIPR 75 OHM +-1% 1/10W |
| R1120 | 061G0603750 9F | RST CHIPR 75 OHM +-1% 1/10W |
| R1122 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R1123 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R1124 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R1125 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R1126 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R1127 | 061G0603222 | RST CHIPR 2.2 KOHM +-5% 1/10W |
| R1128 | 061G0603222 | RST CHIPR 2.2 KOHM +-5% 1/10W |
| R1129 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R1130 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R1131 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R2102 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R2103 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R2104 | 061G0603750 9F | RST CHIPR 75 OHM +-1% 1/10W |
| R2105 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R2106 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R2108 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R2110 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R2113 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R2114 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R2201 | 061G0603750 9F | RST CHIPR 75 OHM +-1% 1/10W |
| R2202 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R2203 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R2204 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R2205 | 061G0603471 | RST CHIPR 470 OHM +-5% 1/10W |
| R2206 | 061G0603750 9F | RST CHIPR 75 OHM +-1% 1/10W |
| R2207 | 061G0603750 9F | RST CHIPR 75 OHM +-1% 1/10W |
| R2208 | 061G0603750 9F | RST CHIPR 75 OHM +-1% 1/10W |
| R2209 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R2210 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R2211 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R2214 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R2215 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R2216 | 061G0603750 9F | RST CHIPR 75 OHM +-1% 1/10W |
| R2219 | 061G0603750 9F | RST CHIPR 75 OHM +-1% 1/10W |
| R2220 | 061G0603470 9F | RST CHIPR 47 OHM +-1% 1/10W |
| R4101 | 061G0603102 | RST CHIP 1K 1/10W 5% |
| R4103 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R4105 | 061G0603105 | RST CHIPR 1 MOHM +-5% 1/10W |
| R4106 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R4107 | 061G0603390 0F | RST CHIPR 390 OHM +-1% 1/10W |
| R4109 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R4114 | 061G0603100 | RST CHIPR 10 OHM +-5% 1/10W |
| R4115 | 061G0603100 | RST CHIPR 10 OHM +-5% 1/10W |

| | | |
|---|---|---|
| R4118 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4119 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4120 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4121 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4122 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4123 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4124 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4125 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4126 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4127 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4128 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4129 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4130 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4131 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4132 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4133 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4134 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4135 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R4136 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4137 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4138 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4139 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4140 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4141 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4142 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4143 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4144 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4145 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4146 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4151 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4152 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4153 | 061G0603220 | RST CHIPR 22 OHM +-5% 1/10W |
| R4154 | 061G0603220 | RST CHIPR 22 OHM +-5% 1/10W |
| R4155 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4156 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4157 | 061G0603332 | RST CHIPR 3.3 KOHM +-5% 1/10W |
| R4158 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4160 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4161 | 061G0603102 | RST CHIP 1K 1/10W 5% |
| R4163 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4164 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4165 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4166 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4167 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4168 | 061G0603153 | RST CHIPR 15KOHM +-5% 1/10W |
| R4169 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4171 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4172 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4174 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4175 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4176 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4177 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4179 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4182 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4183 | 061G0603332 | RST CHIPR 3.3 KOHM +-5% 1/10W |
| R4184 | 061G0603102 | RST CHIP 1K 1/10W 5% |
| R4185 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R4186 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4187 | 061G0603104 | RST CHIPR 100 KOHM +-5% 1/10W |
| R4188 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R4189 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4201 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4202 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R4203 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4204 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4206 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4207 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4208 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4209 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4210 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R4211 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R4212 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R4213 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R5101 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R5102 | 061G0603473 | RST CHIPR 47 KOHM +-5% 1/10W |
| R5103 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R5104 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R5105 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R5106 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R5107 | 061G0603223 | RST CHIPR 22 KOHM +-5% 1/10W |
| R5108 | 061G0603102 | RST CHIP 1K 1/10W 5% |
| R5109 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R5110 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R5111 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R6102 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R6103 | 061G0603123 | RST CHIPR 12 KOHM +-5% 1/10W |
| R6104 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R6105 | 061G0603123 | RST CHIPR 12 KOHM +-5% 1/10W |
| R6106 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R6107 | 061G0603123 | RST CHIPR 12 KOHM +-5% 1/10W |
| R6111 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R6112 | 061G0603123 | RST CHIPR 12 KOHM +-5% 1/10W |
| R6113 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R6114 | 061G0603123 | RST CHIPR 12 KOHM +-5% 1/10W |
| R6115 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R6116 | 061G0603123 | RST CHIPR 12 KOHM +-5% 1/10W |
| R6202 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R6203 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R6204 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R6205 | 061G0603331 | RST CHIP 330R 1/10W 5% |
| R6206 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R6207 | 061G0603223 | RST CHIPR 22 KOHM +-5% 1/10W |
| R6208 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R6209 | 061G0603223 | RST CHIPR 22 KOHM +-5% 1/10W |
| R6210 | 061G0603104 | RST CHIPR 100 KOHM +-5% 1/10W |
| R6212 | 061G0603104 | RST CHIPR 100 KOHM +-5% 1/10W |
| R6214 | 061G0603124 | RST CHIPR 120 KOHM +-5% 1/10W |
| R6215 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R6223 | 061G0603471 | RST CHIPR 470 OHM +-5% 1/10W |
| R6224 | 061G0603471 | RST CHIPR 470 OHM +-5% 1/10W |
| R6227 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R6238 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R6239 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R6240 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R6241 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R6246 | 061T153M22959A SY | RST MOFR 2R2 +-5% 3W |
| R7101 | 061G0603104 | RST CHIPR 100 KOHM +-5% 1/10W |
| R7102 | 061G0603394 | RST CHIPR 390 KOHM +-5% 1/10W |
| R7103 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R7104 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R7109 | 061G0603224 | RST CHIPR 220 KOHM +-5% 1/10W |
| R7110 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R7111 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R7112 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R7117 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R7119 | 061G0603563 | RST CHIPR 56 KOHM +-5% 1/10W |
| R7120 | 061G0603753 | RST CHIPR 75 KOHM +-5% 1/10W |
| R7124 | 061G0603473 | RST CHIPR 47 KOHM +-5% 1/10W |
| R7125 | 061G0603102 | RST CHIP 1K 1/10W 5% |
| R7126 | 061G0603473 | RST CHIPR 47 KOHM +-5% 1/10W |
| R7127 | 061G0603102 | RST CHIP 1K 1/10W 5% |
| R7133 | 061G1206000 | 0 OHM 1/8W |
| R7201 | 061G0603102 | RST CHIP 1K 1/10W 5% |
| R7202 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R7203 | 061G0603100 | RST CHIPR 10 OHM +-5% 1/10W |
| R7204 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R7205 | 061G0603102 | RST CHIP 1K 1/10W 5% |
| R7206 | 061G0603222 | RST CHIPR 2.2 KOHM +-5% 1/10W |
| R7207 | 061G0603100 | RST CHIPR 10 OHM +-5% 1/10W |
| R7208 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R7209 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R7210 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R7211 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R7213 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R7301 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R7302 | 061G0603479 | RST CHIPR 4.7 OHM +-5% 1/10W |
| R7303 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| R7304 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R7305 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R7306 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R7307 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R7308 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R7309 | 061G0603470 | RST CHIPR 47 OHM +-5% 1/10W |
| R7310 | 061G0603479 | RST CHIPR 4.7 OHM +-5% 1/10W |
| R7410 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R7411 | 061G0603101 | RST CHIPR 100 OHM +-5% 1/10W |
| R7505 | 061G0603330 | RST CHIPR 33 OHM +-5% 1/10W |
| R7506 | 061G0603220 | RST CHIPR 22 OHM +-5% 1/10W |
| R7507 | 061G0603220 | RST CHIPR 22 OHM +-5% 1/10W |
| R7508 | 061G0603220 | RST CHIPR 22 OHM +-5% 1/10W |

| | | |
|---|---|---|
| RP4201 | 061G 125101 8 | RST CHIP AR 8P4R 100 OHM +-5% 1/16W |
| RP4202 | 061G 125101 8 | RST CHIP AR 8P4R 100 OHM +-5% 1/16W |
| RP4203 | 061G 125101 8 | RST CHIP AR 8P4R 100 OHM +-5% 1/16W |
| RP4204 | 061G 125101 8 | RST CHIP AR 8P4R 100 OHM +-5% 1/16W |
| RP7501 | 061G 125000 8 | RST CHIP AR 8P4R 0 OHM +-5% 1/16W |
| RP7502 | 061G 125000 8 | RST CHIP AR 8P4R 0 OHM +-5% 1/16W |
| RP7503 | 061G 125000 8 | RST CHIP AR 8P4R 0 OHM +-5% 1/16W |
| RP7504 | 061G 125000 8 | RST CHIP AR 8P4R 0 OHM +-5% 1/16W |
| RP7505 | 061G 125000 8 | RST CHIP AR 8P4R 0 OHM +-5% 1/16W |
| RP7506 | 061G 125000 8 | RST CHIP AR 8P4R 0 OHM +-5% 1/16W |
| | | |
| FB1101 | 071G 59D300 MR | CHIP BEAD 30R/1000mA BLM18PG300SN1D |
| FB1101 | 071G 59K300 TA | CHIP BEAD 0603 30R/700mA TAI-TECH |
| FB1102 | 071G 59D300 MR | CHIP BEAD 30R/1000mA BLM18PG300SN1D |
| FB1102 | 071G 59K300 TA | CHIP BEAD 0603 30R/700mA TAI-TECH |
| FB1103 | 071G 59D300 MR | CHIP BEAD 30R/1000mA BLM18PG300SN1D |
| FB1103 | 071G 59K300 TA | CHIP BEAD 0603 30R/700mA TAI-TECH |
| FB1104 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| FB2101 | 071G 59D300 MR | CHIP BEAD 30R/1000mA BLM18PG300SN1D |
| FB2101 | 071G 59K300 TA | CHIP BEAD 0603 30R/700mA TAI-TECH |
| FB2102 | 071G 57C101 | CHIP BEAD HCB3216K-101T30 |
| FB2102 | 071G 59D300 MR | CHIP BEAD 30R/1000mA BLM18PG300SN1D |
| FB2201 | 071G 59K300 TA | CHIP BEAD 0603 30R/700mA TAI-TECH |
| FB2202 | 071G 59K300 TA | CHIP BEAD 0603 30R/700mA TAI-TECH |
| FB2203 | 071G 59D300 MR | CHIP BEAD 30R/1000mA BLM18PG300SN1D |
| FB2203 | 071G 59K300 TA | CHIP BEAD 0603 30R/700mA TAI-TECH |
| FB2205 | 071G 59D300 MR | CHIP BEAD 30R/1000mA BLM18PG300SN1D |
| FB2205 | 071G 59K300 TA | CHIP BEAD 0603 30R/700mA TAI-TECH |
| FB2206 | 071G 59D300 MR | CHIP BEAD 30R/1000mA BLM18PG300SN1D |
| FB2206 | 071G 59K300 TA | CHIP BEAD 0603 30R/700mA TAI-TECH |
| FB2207 | 071G 59D300 MR | CHIP BEAD 30R/1000mA BLM18PG300SN1D |
| FB2207 | 071G 59K300 TA | CHIP BEAD 0603 30R/700mA TAI-TECH |
| FB4101 | 071T 59A121 TA | CHIP BEAD 120R/3000mA HCB1608KF-121T30 |
| FB4102 | 071T 59A121 TA | CHIP BEAD 120R/3000mA HCB1608KF-121T30 |
| FB4103 | 071T 59A121 TA | CHIP BEAD 120R/3000mA HCB1608KF-121T30 |
| FB4104 | 071T 59A121 TA | CHIP BEAD 120R/3000mA HCB1608KF-121T30 |
| FB4105 | 071T 59A121 TA | CHIP BEAD 120R/3000mA HCB1608KF-121T30 |
| FB4106 | 071T 59A121 TA | CHIP BEAD 120R/3000mA HCB1608KF-121T30 |
| FB4107 | 071T 59A121 TA | CHIP BEAD 120R/3000mA HCB1608KF-121T30 |
| FB4108 | 071T 59A121 TA | CHIP BEAD 120R/3000mA HCB1608KF-121T30 |
| FB4109 | 071T 59A121 TA | CHIP BEAD 120R/3000mA HCB1608KF-121T30 |
| FB4201 | 071G 59C601 TA | CHIP BEAD 600R/200mA FCM1608K-601T02 |
| FB4201 | 071G 59S601 T | CHIP BEAD 600R/500mA MMZ1608S601CT |
| FB4202 | 071G 59C601 TA | CHIP BEAD 600R/200mA FCM1608K-601T02 |
| FB4202 | 071G 59S601 T | CHIP BEAD 600R/500mA MMZ1608S601CT |
| FB5101 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| FB6201 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| FB6202 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| FB6203 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| FB6204 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| FB7104 | 071G 56A221 TA | IND FXD 0805 EMI 100MHZ 220R R |
| FB7106 | 071G 56A221 TA | IND FXD 0805 EMI 100MHZ 220R R |
| FB7201 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| FB7202 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| FB7203 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| FB7204 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| FB7205 | 071G 56121 TA | IND FXD 0805 EMI 100MHZ 120R R |
| L6202 | 073G 259902 | IND FXD TSL0808 S 33U PM10 B |
| L6203 | 073G 259902 | IND FXD TSL0808 S 33U PM10 B |
| L6204 | 073G 259902 | IND FXD TSL0808 S 33U PM10 B |
| L6205 | 073G 259902 | IND FXD TSL0808 S 33U PM10 B |
| L7101 | 073G 253900 HJ | CHOKE COIL |
| L7101 | 073G 253900 LS | CHOKE COIL 35uH+/-10% 82mohm DR10*8 |
| L7103 | 073G 253900 HJ | CHOKE COIL |
| L7103 | 073G 253900 LS | CHOKE COIL 35uH+/-10% 82mohm DR10*8 |
| L7104 | 073G 253900 HJ | CHOKE COIL |
| L7104 | 073G 253900 LS | CHOKE COIL 35uH+/-10% 82mohm DR10*8 |
| | | |
| D1101 | 093G 60505 | DIO SIG SM BAT54C(PHSE)R |
| D1101 | 093T 60230 | BAT54C BY MCC |
| D1102 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D1103 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D1104 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D5101 | 093G 60505 | DIO SIG SM BAT54C(PHSE)R |
| D5101 | 093T 60230 | BAT54C BY MCC |
| D5102 | 093G 60505 | DIO SIG SM BAT54C(PHSE)R |
| D5102 | 093T 60230 | BAT54C BY MCC |
| D7102 | 093G1020 PH | DIODE S1D-E3 VISHAY |
| D7103 | 093G1020 PH | DIODE S1D-E3 VISHAY |
| ZD1101 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD1101 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD1102 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD1102 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD1103 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD1103 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD1104 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD1104 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD1105 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD1105 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD5101 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD5101 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD5102 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD5102 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD5103 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD5103 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD7101 | 093G 60S801 | DIODE SSA34 VISHAY |
| ZD7103 | 093G 60S801 | DIODE SSA34 VISHAY |
| ZD7104 | 093G 60S801 | DIODE SSA34 VISHAY |
| ZD7302 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD7302 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD7303 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD7303 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD7401 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD7401 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD7402 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD7402 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| ZD7403 | 093G 39S901 T | DIODE BZX84-C5V6 SOT-23 VISHAY |
| ZD7403 | 093G 39S911 T | DIODE BZX84-C5V6 SOT-23 PHILIPS |
| | | |
| Q5101 | 057G 419513 | BC847C |
| Q5101 | 057G 477900 T | TRA SIG SM BC847C (KEC0) R |
| Q5102 | 057G 419513 | BC847C |
| Q5102 | 057G 477900 T | TRA SIG SM BC847C (KEC0) R |
| Q6201 | 057G 419513 | BC847C |
| Q6201 | 057G 477900 T | TRA SIG SM BC847C (KEC0) R |
| Q7101 | 057G 7601PH | TRA SIG SM MUN2211J(ONSE)R |
| Q7101 | 057G 7602PH | TRA PDTC114EK SC-59 PHILIPS |
| Q7102 | 057G 7601PH | TRA SIG SM MUN2211J(ONSE)R |
| Q7102 | 057G 7602PH | TRA PDTC114EK SC-59 PHILIPS |
| Q7103 | 057G 7631PH | FET POW SM SI5441DC(VISH)R |
| Q7104 | 057G 7601PH | TRA SIG SM MUN2211J(ONSE)R |
| Q7104 | 057G 7602PH | TRA PDTC114EK SC-59 PHILIPS |
| Q7106 | 057G 419513 | BC847C |
| Q7106 | 057G 477900 T | TRA SIG SM BC847C (KEC0) R |
| Q7107 | 057G 419513 | BC847C |
| Q7107 | 057G 477900 T | TRA SIG SM BC847C (KEC0) R |
| Q7109 | 057G 7631PH | FET POW SM SI5441DC(VISH)R |
| Q7201 | 057G 419513 | BC847C |
| Q7201 | 057G 477900 T | TRA SIG SM BC847C (KEC0) R |
| Q7202 | 057G 419513 | BC847C |
| Q7202 | 057G 477900 T | TRA SIG SM BC847C (KEC0) R |
| U1101 | 056G1133 34 | M24C02-WMN6TP |
| U1101 | 056T1133907 | IC AT24C02BN-10SU-1.8 SO8 |
| U4101 | 056T 562916 | IC MST96885LD-LF LQFP256 |
| U4106 | 056T 643903 | IC AP1702EWL SOT23 |
| U4203 | 056T 615905 | IC HY57V641620ETP-6-C TSOPII-54 |
| U5101 | 056G1133 34 | M24C02-WMN6TP |
| U5101 | 056T1133907 | IC AT24C02BN-10SU-1.8 SO8 |
| U6201 | 056G 616901 | IC TPA3005D2PHP PQFP48 |
| U7101 | 056T 563927 | IC AIC1596-33PM5 TO263-5 |
| U7103 | 056G 563902 | IC AME8815AEGT180Z SOT-223 AME |
| U7104 | 056G 563903 | IC AME8815AEGT330Z SOT-223 AME |
| U7105 | 056T 563926 | IC AIC1596-50PM5 TO263-5 |
| U7106 | 056T 563926 | IC AIC1596-50PM5 TO263-5 |

PCB Assy

| | | |
|---|---|---|
| 1054 | PWPFA66CR1P | POWER PCB ASSY |

Various

| | | |
|---|---|---|
| CN1 | 062G 10 18 KW | SURGE PROTECT GS41-201MA A |
| CN4 | 062G 10 18 KW | SURGE PROTECT GS41-201MA A |
| CN5 | 062G 10 18 KW | SURGE PROTECT GS41-201MA A |
| CN6 | 062G 10 18 KW | SURGE PROTECT GS41-201MA A |
| CN801 | 033G80212PH FP | CONN. 2P DIP R/A 61196 |
| CN802 | 033G80212PH FP | CONN. 2P DIP R/A 61196 |
| CN803 | 033G80212PH FP | CONN. 2P DIP R/A 61196 |
| CN804 | 033G80212PH FP | CONN. 2P DIP R/A 61196 |
| CN805 | 033G80212PH FP | CONN. 2P DIP R/A 61196 |
| CN806 | 033G80212PH FP | CONN. 2P DIP R/A 61196 |
| CN901 | 087G501 001 | AC SOCKET Xinya |

| | | |
|---|---|---|
| CN901 | 087T 501906 FP | AC SOCKET 20176 |
| F901 | 084G 41 3 | 3.15AH/250V |
| PT801 | 080TL20T910 DN | XFMR 175.5uH TK.6512A.101 |
| PT802 | 080TL20T910 DN | XFMR 175.5uH TK.6512A.101 |
| PT803 | 080TL20T910 DN | XFMR 175.5uH TK.6512A.101 |
| PT804 | 080TL20T910 DN | XFMR 175.5uH TK.6512A.101 |
| PT805 | 080TL20T910 DN | XFMR 175.5uH TK.6512A.101 |
| PT806 | 080TL20T910 DN | XFMR 175.5uH TK.6512A.101 |
| T901 | 080TL20T909 LS | XFMR PPH6002FL |
| T901 | PT007535 1 | X'FMR ER33 (PT007535-1) |
| | | |
| C801 | 067G215L471 4C | EC 470UF 25V GL 10*16mm |
| C802 | 067G215L471 4C | EC 470UF 25V GL 10*16mm |
| C803 | 065G080510522K | CAP CHIP 0805 1U 25V X7R 10% |
| C804 | 065G080510522K | CAP CHIP 0805 1U 25V X7R 10% |
| C805 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C806 | 065G080510512K | CAP CHIP 0805 1U 16V X7R 10% |
| C807 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C808 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C809 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C810 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C811 | 065G080510512K | CAP CHIP 0805 1U 16V X7R 10% |
| C812 | 065G0805103 22 | CHIP 0.01uF 25V X7R 0805 |
| C813 | 065G0805474 22 | CHIP 0.47UF 25V X7R 0805 |
| C814 | 065G080510522K | CAP CHIP 0805 1U 25V X7R 10% |
| C815 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C816 | 065G080582232K | CAP CHIP 0805 8N2 50V X7R 10% |
| C817 | 065G080515232K | CAP CHIP 0805 1N5 50V X7R 10% |
| C818 | 065G080547332K | CAP CHIP 0805 47N 50V X7R 10% |
| C820 | 065G080582232K | CAP CHIP 0805 8N2 50V X7R 10% |
| C822 | 065G080522131J | CHIP CAP 0805 220PF J 50V NPO |
| C823 | 065G080547332K | CAP CHIP 0805 47N 50V X7R 10% |
| C824 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C825 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C826 | 065G120610432K | CER 1206 100N 50V X7R 10% |
| C827 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C828 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C829 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C830 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C831 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C834 | 065G 3J1006ET | 10PF,J,3KV,SL |
| C835 | 065G080518332K Y | CAP CHIP 0805 18NF K 50V X7R |
| C836 | 065G080515231J | CAP CHIP 0805 1N5 50V NPO 5% |
| C837 | 065G 3J1006ET | 10PF,J,3KV,SL |
| C838 | 065G080518332K Y | CAP CHIP 0805 18NF K 50V X7R |
| C839 | 065G080515231J | CAP CHIP 0805 1N5 50V NPO 5% |
| C840 | 065G 3J1006ET | 10PF,J,3KV,SL |
| C841 | 065G080518332K Y | CAP CHIP 0805 18NF K 50V X7R |
| C842 | 065G080515231J | CAP CHIP 0805 1N5 50V NPO 5% |
| C843 | 065G 3J1006ET | 10PF,J,3KV,SL |
| C844 | 065G080518332K Y | CAP CHIP 0805 18NF K 50V X7R |
| C845 | 065G080515231J | CAP CHIP 0805 1N5 50V NPO 5% |
| C846 | 065G 3J1006ET | 10PF,J,3KV,SL |
| C847 | 065G080518332K Y | CAP CHIP 0805 18NF K 50V X7R |
| C848 | 065G080515231J | CAP CHIP 0805 1N5 50V NPO 5% |
| C849 | 065G 3J1006ET | 10PF,J,3KV,SL |
| C850 | 065G080518332K Y | CAP CHIP 0805 18NF K 50V X7R |
| C851 | 065G080515231J | CAP CHIP 0805 1N5 50V NPO 5% |
| C852 | 065G080510422K | CAP CHIP 0805 100N 25V X7R 10% |
| C853 | 065G080510512K | CAP CHIP 0805 1U 16V X7R 10% |
| C854 | 065G080510512K | CAP CHIP 0805 1U 16V X7R 10% |
| C856 | 065G080547412K | CAP CHIP 0805 470N 16V X7R 10% |
| C858 | 065G1206475 22 | 4.7U/25V X7R |
| C860 | 065G1206475 22 | 4.7U/25V X7R |
| C861 | 065G1206475 22 | 4.7U/25V X7R |
| C863 | 065G1206475 22 | 4.7U/25V X7R |
| C900 | 065G306K4712B3 | Y1 CAP 470pF +10% 250VAC CD SERIES |
| C900 | 065G306K4712BM | Y1 CAP 470PF +10% 250V AC KX |
| C901 | 065G306K4712B3 | Y1 CAP 470pF +10% 250VAC CD SERIES |
| C901 | 065G306K4712BM | Y1 CAP 470PF +10% 250V AC KX |
| C907 | 067G 30512115C | EC 120uF 450V KM 18x41mm |
| C907 | 067G 30512115E | EC 120uF 450V RXC 18x40mm |
| C908 | 063G 107474 U | MPX-474K27B15L3 |
| C908 | 063G 107474 HS | 0.47UF 275VAC |
| C908 | 063G 10747410S | CAP PLASTIC |
| C910 | 065G306M2222B3 | Y1 CAP 2200PF M 250VAC CD SERIES |
| C910 | 065G306M2222B4 | Y1 CAP 2200pF +20% 250VAC CD SERIES |
| C910 | 065G306M2222BM | 2200PF +20% 250VAC |
| C910 | 065T306M2222B3 | CER Y2 2200PF M 400VAC TDK |
| C914 | 065G080510522K | CAP CHIP 0805 1U 25V X7R 10% |
| C915 | 065G080510232K | CAP CHIP 0805 1N 50V X7R 10% |
| C916 | 065G080533422K | CAP CHIP 0805 330N 25V X7R 10% |
| C917 | 067G 305220 7T | 105C 22UF +20% 50V |
| C919 | 065G080510522K | CAP CHIP 0805 1U 25V X7R 10% |
| C920 | 065G517K2224AT | C CAP. 2200PF 500V PITCH 5.0 mm |
| C920 | 065G517K2229AP | C CAP. 2200PF 500V 10% X7R |
| C920 | 065G517K2229AV | C CAP. 2200PF 500V 10% X7R |
| C931 | 065G517K2224AT | C CAP. 2200PF 500V PITCH 5.0 mm |
| C931 | 065G517K2229AP | C CAP. 2200PF 500V 10% X7R |
| C931 | 065G517K2229AV | C CAP. 2200PF 500V 10% X7R |
| C932 | 067G215H102 4C | EC 1000uF 25V LZ 10x20mm |
| C932 | 067G215H102 4K | LOW ESR EC 1000UF 25V EB1E102M |
| C933 | 067G215H102 4C | EC 1000uF 25V LZ 10x20mm |
| C933 | 067G215H102 4K | LOW ESR EC 1000UF 25V EB1E102M |
| C934 | 067G215H471 4K | LOW E,S,R 470UF +20% 25V |
| C934 | 067G215R471 4C | EC 470uF 25V LZ 10x12.5mm |
| C935 | 065G080547422K | CAP CHIP 0805 470N 25V X7R 10% |
| C936 | 067G215H102 4C | EC 1000uF 25V LZ 10x20mm |
| C936 | 067G215H102 4K | LOW ESR EC 1000UF 25V EB1E102M |
| C937 | 065G080510432K | CAP CHIP 0805 100N 50V X7R 10% |
| C938 | 067G215H471 4K | LOW E,S,R 470UF +20% 25V |
| C938 | 067G215R471 4C | EC 470uF 25V LZ 10x12.5mm |
| C943 | 065G080510432K | CAP CHIP 0805 100N 50V X7R 10% |
| C944 | 065G080510432K | CAP CHIP 0805 100N 50V X7R 10% |
| C945 | 065G080510432K | CAP CHIP 0805 100N 50V X7R 10% |
| C946 | 065G080510432K | CAP CHIP 0805 100N 50V X7R 10% |
| C947 | 065G0805101 31 | CHIP 100PF 50V NPD 0805 |
| C950 | 065G080510432K | CAP CHIP 0805 100N 50V X7R 10% |
| | | |
| J843 | 061G1206000 | 0 OHM 1/8W |
| J844 | 061G1206000 | 0 OHM 1/8W |
| R800 | 061G0805000 | 0 OHM 1/10W |
| R801 | 061G0805103 | 10 KOHM 1/10W |
| R802 | 061G0805103 | 10 KOHM 1/10W |
| R803 | 061G0805363 | RST CHIPR 36 KOHM +5% 1/8W |
| R804 | 061G0805104 | RST CHIP 100K 1/8W 5% |
| R805 | 061G0805103 | 10 KOHM 1/10W |
| R813 | 061G0805383 3F | RST CHIP 383K 1/8W 1% |
| R814 | 061G0805204 | RST CHIPR 200 KOHM +5% 1/8W |
| R815 | 061G0805563 | 56KOHM 1/10W |
| R816 | 061G 17210352T | 10KOHM +5% 1/4W |
| R816 | 061G203S10352T | RST MFLM 10K 0.6W 1% |
| R817 | 061G0805104 | RST CHIP 100K 1/8W 5% |
| R818 | 061G0805202 | RST CHIP 2K 1/8W 5% |
| R819 | 061G0805331 | RST CHIPR 330 OHM +5% 1/8W |
| R820 | 061G 17210052T | 10 OHM 5% 1/4W |
| R821 | 061G0805514 | RST CHIPR 510 KOHM +5% 1/8W |
| R822 | 061G0805103 | 10 KOHM 1/10W |
| R823 | 061G0805105 | 1MOHM 1/10W |
| R824 | 061G0805103 | 10 KOHM 1/10W |
| R825 | 061G0805105 | 1MOHM 1/10W |
| R826 | 061G0805103 | 10 KOHM 1/10W |
| R827 | 061G0805105 | 1MOHM 1/10W |
| R828 | 061G0805514 | RST CHIPR 510 KOHM +5% 1/8W |
| R829 | 061G0805103 | 10 KOHM 1/10W |
| R830 | 061G0805105 | 1MOHM 1/10W |
| R831 | 061G0805103 | 10 KOHM 1/10W |
| R832 | 061G0805105 | 1MOHM 1/10W |
| R833 | 061G0805103 | 10 KOHM 1/10W |
| R834 | 061G1206105 | 1M 1206 |
| R835 | 061G0805105 | 1MOHM 1/10W |
| R836 | 061G0805334 | RST CHIPR 330 KOHM +5% 1/8W |
| R837 | 061G0805511 | RST CHIPR 510 OHM +5% 1/8W |
| R838 | 061G0805241 | RST CHIPR 240 OHM +5% 1/8W |
| R839 | 061G0805511 | RST CHIPR 510 OHM +5% 1/8W |
| R840 | 061G0805241 | RST CHIPR 240 OHM +5% 1/8W |
| R841 | 061G0805511 | RST CHIPR 510 OHM +5% 1/8W |
| R842 | 061G0805241 | RST CHIPR 240 OHM +5% 1/8W |
| R843 | 061G0805511 | RST CHIPR 510 OHM +5% 1/8W |
| R844 | 061G0805241 | RST CHIPR 240 OHM +5% 1/8W |
| R845 | 061G0805511 | RST CHIPR 510 OHM +5% 1/8W |
| R846 | 061G0805241 | RST CHIPR 240 OHM +5% 1/8W |
| R847 | 061G0805511 | RST CHIPR 510 OHM +5% 1/8W |
| R848 | 061G0805241 | RST CHIPR 240 OHM +5% 1/8W |
| R849 | 061G0805103 | 10 KOHM 1/10W |
| R850 | 061G1206000 | 0 OHM 1/8W |
| R851 | 061G0805113 | RST CHIPR 11 KOHM +5% 1/8W |
| R900 | 061G1206564 | RST CHIPR 560 KOHM +5% 1/4W |
| R901 | 061G1206564 | RST CHIPR 560 KOHM +5% 1/4W |
| R902 | 061G1206564 | RST CHIPR 560 KOHM +5% 1/4W |

| | | |
|---|---|---|
| R905 | 061G208M10452T | RST MOF 100K 5% 1W |
| R914 | 061G0805103 | 10 KOHM 1/10W |
| R915 | 061G0805220 | 22&8 1/10W |
| R916 | 061G0805479 | RST CHIP 4R7 1/8W 5% |
| R917 | 061G0805102 | CHIP 1KOHM 1/10W |
| R918 | 061G0805472 | RST CHIPR 4.7 KOHM +5% 1/8W |
| R919 | 061G0805223 | RST CHIPR 22 KOHM +5% 1/8W |
| R920 | 061G208M18852T | RST MOF 0R18 5% 1W |
| R921 | 061G1206229 | RST CHIPR 2.2 OHM +5% 1/4W |
| R923 | 061G0805472 | RST CHIPR 4.7 KOHM +5% 1/8W |
| R925 | 061G0805103 | 10 KOHM 1/10W |
| R926 | 061G0805154 | RST CHIPR 150KOHM +5% 1/8W |
| R928 | 061G0805224 | RST CHIPR 220 KOHM +5% 1/8W |
| R930 | 061G0805240 1F | 2.4KOHM 1/10W 1% |
| R931 | 061G0805102 | CHIP 1KOHM 1/10W |
| R932 | 061G0805101 | RST CHIPR 100 OHM +5% 1/8W |
| R933 | 061G0805130 2F | RST CHIP 13K 1/8W 1% |
| R936 | 061G0805152 | RST CHIPR 1.5 KOHM +5% 1/8W |
| R940 | 061G0805103 | 10 KOHM 1/10W |
| R941 | 061G1206103 | 10 KOHM 1/8W |
| R942 | 061G1206103 | 10 KOHM 1/8W |
| R943 | 061G1206100 | RST CHIP 10R 1/4W 5% |
| RV901 | 061G 46902 | VARISTOR 510V TVR14511KFC4FY |
| NR901 | 061G 58907 W | NTC 4A/7R 20% SCK13074MGY001 |
| | | |
| FB903 | 071G 57K500 MR | CHIP BEAD 50R/3000mA BLM31PG500SN1L |
| L901 | 073L 174 31 LG | CHOKE COIL |
| L901 | 073L 174 31LSG | CHOKE COIL |
| L902 | 073T 174920 LS | LINE FILTER 5mH 1.0A FPH6007FL |
| L902 | LF007341 | LINE FILTER 5mH (LF007341) |
| L921 | 073G 253902 H | IND CHOKE 0.8uH MIN DADONG |
| L921 | 073G 253902 L | IND CHOKE 0.8uH MIN LITAI |
| L921 | 073G 253902 T | CKOLE COIL 0.8uH |
| L922 | 073G 253902 H | IND CHOKE 0.8uH MIN DADONG |
| L922 | 073G 253902 L | IND CHOKE 0.8uH MIN LITAI |
| L922 | 073G 253902 T | CKOLE COIL 0.8uH |
| | | |
| BD901 | 093G 50460900 | BRIDEGE DIODE GUB408 LITEON |
| BD901 | 093G 50460901 | BRIDGE 4A/800V GBU4K VISHAY |
| D801 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D802 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D803 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D804 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D805 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D806 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D807 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D808 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D809 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D810 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D811 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D812 | 093G 64 33 | DIO SIG SM BAV99 (PHSE)R |
| D813 | 093G 64 42 PP | BAV70 SOT-23 |
| D814 | 093G 64 42 PP | BAV70 SOT-23 |
| D815 | 093G 64 42 PP | BAV70 SOT-23 |
| D819 | 093G 6432V | LL4148-GSO8 |
| D819 | 093G 64S3PH | BAS32L |
| D820 | 093G 6432V | LL4148-GSO8 |
| D820 | 093G 64S3PH | BAS32L |
| D821 | 093G 6432V | LL4148-GSO8 |
| D821 | 093G 64S3PH | BAS32L |
| D822 | 093G 6432V | LL4148-GSO8 |
| D822 | 093G 64S3PH | BAS32L |
| D823 | 093G 6432V | LL4148-GSO8 |
| D823 | 093G 64S3PH | BAS32L |
| D824 | 093G 6432V | LL4148-GSO8 |
| D824 | 093G 64S3PH | BAS32L |
| D906 | 093G 64 5152T | RGP10-DO-204AL |
| D906 | 093G 6490352T | DIO REC RGP10D A (GULF) A |
| D907 | 093G110090052T | DIODE UF1007 1A 1000V DO-41 |
| D907 | 093G110090152T | DIODE BYV26EGP 1A 1000V DO-41 |
| D910 | 093G 64901 T | DIO SIG SM BAV103 (VISH) R |
| D910 | 093G 52S900 T | DIODE BAV103 SOD-80C PHILIPS |
| D911 | 093G 64901 T | DIO SIG SM BAV103 (VISH) R |
| D911 | 093G 52S900 T | DIODE BAV103 SOD-80C PHILIPS |
| D912 | 093G 64901 T | DIO SIG SM BAV103 (VISH) R |
| D912 | 093G 52S900 T | DIODE BAV103 SOD-80C PHILIPS |
| D921 | 093G 60252 | SP20150 |
| D921 | 093G 60271 | MBRF20150CT ITO-220AB |
| D929 | 093G 64 5152T | RGP10-DO-204AL |
| ZD801 | 093G 39GA01 T | RLZ5.6B |
| ZD801 | 093G 39S 24 T | RLZ 5.6B LLDS |
| ZD802 | 093G 39GA01 T | RLZ5.6B |
| ZD802 | 093G 39S 24 T | RLZ 5.6B LLDS |
| ZD803 | 093G 39GA01 T | RLZ5.6B |
| ZD803 | 093G 39S 24 T | RLZ 5.6B LLDS |
| ZD926 | 093G 39 2452T | DIODE HZ15-2 |
| ZD926 | 093G 3992352T | DIODE ZENER BZX79-B15 DO-35(933712740673 |
| ZD926 | 093T 3992352T | DIODE BZX79-B15 DO-35 |
| | | |
| IC888 | 057G 608 7 | OZT1060GN SOIC-20 |
| IC901 | 056G 379 71 | IC TEA1530AT SO-8 PHILIPS |
| IC902 | 056G 139 3B | PC123 Y82FZ0F |
| IC902 | 056G 139 5A | TCET1103G |
| IC921 | 056G 158 10 T | IC AZ431AZ-AE1 TO-92 BY AAC |
| IC921 | 056G 158 12 | KIA431A-AT/P TO-92 |
| IC921 | 056G 158901 | IC TL431ACZ S (ST00) A |
| Q811 | 056G 566900 | MOSFET AO4606 |
| Q811 | 057G 60040A | AM4512C-T1-PF SO-8 |
| Q812 | 056G 566900 | MOSFET AO4606 |
| Q812 | 057G 60040A | AM4512C-T1-PF SO-8 |
| Q813 | 056G 566900 | MOSFET AO4606 |
| Q813 | 057G 60040A | AM4512C-T1-PF SO-8 |
| Q814 | 056G 566900 | MOSFET AO4606 |
| Q814 | 057G 60040A | AM4512C-T1-PF SO-8 |
| Q815 | 057G 759 2 | RK7002 |
| Q817 | 057G 760 4B | PDTA144WK SOT346 |
| Q818 | 057G 759 2 | RK7002 |
| Q819 | 057G 417 4 | PMBS3904/PHILIPS-SMT(04) |
| Q819 | 057G 417 12 T | KEC 2N3904S-RTK/PS |
| Q820 | 057G 759 2 | RK7002 |
| Q821 | 057G 759 2 | RK7002 |
| Q822 | 057G 759 2 | RK7002 |
| Q823 | 057G 759 2 | RK7002 |
| Q824 | 057G 759 2 | RK7002 |
| Q825 | 057G 759 2 | RK7002 |
| Q826 | 057G 759 2 | RK7002 |
| Q827 | 057G 759 2 | RK7002 |
| Q902 | 057G 667 21 | STP10NK70ZFP |
| Q902 | 057G 667900 | STP7NK80ZFP |
| Q902 | 057G 724 8 | 2SK2843(SC) |
| Q902 | 057T 724 11 | STP9NK65ZFP |
| | AIPWPFA66CR1P | PWPFA66CR1P AI |

PCB Assy

| | | |
|---|---|---|
| 1056 | IRPF7PA8 | IR PCB ASSY |
| | | |
| C0201 | 065G080510517M | CAP CHIP 0805 1U 16V Y5V +/-20% |
| | | |
| R0201 | 061G0603681 | RST CHIPR 680 OHM +-5% 1/10W |
| R0202 | 061G0603221 | RST CHIPR 220 OHM +-5% 1/10W |
| R0203 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R0204 | 061G0603103 | RST CHIPR 10 KOHM +-5% 1/10W |
| R0205 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R0206 | 061G0603472 | RST CHIPR 4.7KOHM +-5% 1/10W |
| R0209 | 061G0603000 | RST CHIPR 0 OHM +-5% 1/10W |
| | | |
| LED0201 | 081T 14905 KB | LED SM KPB-3025SYKPBAC |
| | | |
| Q0201 | 057G 477900 T | TRA SIG SM BC847C (KEC0) R |
| Q0202 | 057G 477900 T | TRA SIG SM BC847C (KEC0) R |
| Q0203 | 057G 420519 T | TRA SIG SM BC857CG (ONSE) R |
| Q0203 | 057G 420902 T | TRA SIG SM BC858CLG (ONSE) R |
| Q0203 | 057G 761900 T | BC857 SOT23 |

PCB Assy

| | | |
|---|---|---|
| 1057 | KEPF7PA7 | KEY BOARD ASSY |

Various

| | | |
|---|---|---|
| SW0106 | 077G 605 1 FD | SWI TACT H=5 GY 160G SKHHAM B |
| SW0105 | 077G 605 1 FD | SWI TACT H=5 GY 160G SKHHAM B |
| SW0104 | 077G 605 1 FD | SWI TACT H=5 GY 160G SKHHAM B |
| SW0103 | 077G 605 1 FD | SWI TACT H=5 GY 160G SKHHAM B |
| SW0102 | 077G 605 1 FD | SWI TACT H=5 GY 160G SKHHAM B |
| SW0101 | 077G 605 1 FD | SWI TACT H=5 GY 160G SKHHAM B |
| | | |
| R0102 | 061G0603182 | RST CHIPR 1.8 KOHM +5% 1/10W |
| R0105 | 061G0603182 | RST CHIPR 1.8 KOHM +5% 1/10W |
| R0101 | 061G0603221 | RST CHIPR 220 OHM +5% 1/10W |
| R0104 | 061G0603221 | RST CHIPR 220 OHM +5% 1/10W |
| R0103 | 061G0603821 | RST CHIPR 820 OHM +5% 1/10W |

| Diversity of 20PFL4122/79(CPT) compared with 20PFL4122/93(CPT) | | | | | |
|---|---|---|---|---|---|
| 20PFL4122/79(8670 000 27455) | | | 20PFL4122/93(8670 000 27396) | | |
| Item | 18 Code Number | DESCRIPTION | Item | 18 Code Number | DESCRIPTION |
| 450 | P44TA009813 2A | CARTON | 450 | P44TA009813 1A | CARTON (BIG PACKING) |
| 505 | P44TA009813 2A | CARTON | 505 | P44TA009813 1A | CARTON (BIG PACKING) |
| 515 | P44TA009813 2A | CARTON | 515 | P44TA009813 1A | CARTON (BIG PACKING) |
| 1172 | 089G412A18NLS1 | MAINSCORD AUS/NZ 7A5 1M8 BK | 1172 | 089G414A18NLSC | MAINSCORD CCEE 10A 1M8 DET BK |
| 1173 | 089G402A18NIS5 | MAINSCORD UL 10A 1M8 DET BK | | | |
| 1173 | 089G402A18NLS2 | MAINSCORD | | | |
| 8803 | 089T176E 50909 | FFC CABLE 50P 295mm P0.5 | 8803 | 089T176E 16909 | FFC CABLE 50P 295mm P0.5 |
| | 705TZ701005 | DFU ASSY | | 705TZ701003 | DFU ASSY |
| 1053 | CBPF72MLP3 | SCALER PCB ASSY - 20PFL4122/79 | 1053 | CBPF72MDP3 | SCALER PCB ASSY |
| 615 | 100TP101000311 | HEX CODE | 615 | 100TP101000301 | HEX CODE |
| 1256 | 705TP756052 | Serial IIC EEPROM ASSY - CPT | 1256 | 705TP756050 | Serial IIC EEPROM ASSY - CPT |
| 1257 | 705TP756053 | SPI FLASH ASSY | 1257 | 705TP756051 | SPI FLASH ASSY |
| TU2101 | 094TNPALALL P1 | TUNER FQ1216PN/I H-5 PHILIPS | TU2101 | 094T PALBDI 1P | TUNER, FQ1256/ I H-5 |
| U4202 | 056T1133922 | IC MX25L8005M2C-15G | U4202 | 056T1133917 | IC S25FL004A SO-8 |
| U4202 | 056T1133924 | IC S25FL008A SO-8 | U4202 | 056T1133923 | IC MX25L4005AM2C-12G SOP-8 |

| Diversity of 20PFL4122/98(CPT) compared with 20PFL4122/93(CPT) | | | | | |
|---|---|---|---|---|---|
| 20PFL4122/98(8670 000 27398) | | | 20PFL4122/93(8670 000 27396) | | |
| Item | 18 Code Number | DESCRIPTION | Item | 18 Code Number | DESCRIPTION |
| 450 | P44TA009813 1A | CARTON (BIG PACKING) | 450 | P44TA009813 3A | CARTON |
| 505 | P44TA009813 1A | CARTON (BIG PACKING) | 505 | P44TA009813 3A | CARTON |
| 515 | P44TA009813 1A | CARTON (BIG PACKING) | 515 | P44TA009813 3A | CARTON |
| 1172 | 089G412A18NIS1 | MAINSCORD AUS/NZ 10A 1M8 BK | 1172 | 089G404A18N IS | POWER CORD## |
| 1172 | 089G414A18NLSC | MAINSCORD CCEE 10A 1M8 DET BK | 1172 | 089G404A18NLS1 | POWER CORD PG8B1C3C300-060 |
| | | | 1173 | 089G410A18N IS | POWER CORD WALL-OUT FOR UK |
| | | | 1173 | 089G410A18NLSB | POWER CORD 1.8M PY8B1V6CC0A-060 |
| 8803 | 089T176E 16909 | FFC CABLE 50P 295mm P0.5 | 8803 | 089T176E 50909 | FFC CABLE 50P 295mm P0.5 |
| | 705TZ701003 | DFU ASSY | | 705TZ701006 | DFU ASSY |
| 1053 | CBPF72MDP3 | SCALER PCB ASSY | 1053 | CBPF72MMP3 | SCALER PCB ASSY - 20PFL4122/98 |
| 615 | 100TP101000301 | HEX CODE | 615 | 100TP101000321 | HEX CODE |
| 1256 | 705TP756050 | Serial IIC EEPROM ASSY - CPT | 1256 | 705TP756054 | Serial IIC EEPROM ASSY - CPT |
| 1257 | 705TP756051 | SPI FLASH ASSY | 1257 | 705TP756055 | SPI FLASH ASSY |
| TU2101 | 094T PALBDI 1P | TUNER, FQ1256/ I H-5 | TU2101 | 094TPASEALL 3P | FQ1216ME/IH-5(SV22) |
| U4202 | 056T1133917 | IC S25FL004A SO-8 | U4202 | 056T1133922 | IC MX25L8005M2C-15G |
| U4202 | 056T1133923 | IC MX25L4005AM2C-12G SOP-8 | U4202 | 056T1133924 | IC S25FL008A SO-8 |

| Service Manual 12NC | Content |
|---|---|
| 3122 785 17040 | 20PFL4122/93 release |
| 3122 785 17041 | 20PFL4122/79/98 release |